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A Low Grade Route to Szechwan

The Most Inaccessible Province in China Promised a Commercial Outlet by Rail

The province of Szechwan in Western China is geographically the most isolated district of any importance in China. Every approach to this great territory, which supports a greater population than that of the British Isles, is barred by high mountain ranges over which there are a few trails for the convenience of porters and pack animals but no roads that are open even to the massive and enduring Chinese carts. The only natural trade artery is the Yangtze River and, in its course from Szechwan to the plains of Central China, the Yangtze runs 500 miles through narrow gorges, full of rocks, rapids, and whirlpools which take a huge toll of lives and merchandise, and are impassable to all but very small steamers and native boats. In spite of its great population Szechwan overproduces enormously and its wealth in products has forced it into trade with the plains, and has built up a traffic over mountains and rapids which is surprisingly big. The wealth derived from exports has created a demand for imports and with ready money to offer Szechwan has been able to entice merchants from the Coast past all obstacles and to enjoy all the luxuries of Shanghai or Canton in its isolation.

After one has been towed up the rapids by coolies for sixty days and has come upon some of the most attractive and wealthy cities of China, at the end of the ordeal he cannot avoid thinking how much greater the purchasing power if a line of easy communication were opened between Szechwan and the Coast. Railway engineers and prospectors have always been fascinated by the prospect of getting a line into the Chengtu plain. The difficulty of the task was an attraction and the manifest returns upon a successful piercing of the barriers were so promising that many prospective routes were mapped out on paper and at least one practicable route parallel to the Yangtze was surveyed by an American engineer.

It was always believed, however, that the grades would have to be heavy and that operating expenses would therefore be high. A recent preliminary survey by the Siems-Carey engineers, employed by the Chinese Government, which proves that a line can be built from Sinyang on the Peking-Hankow Railway to Chengtu with a maximum grade of one per cent, is therefore something of a triumph.

The Siems-Carey Railway and Canal Company entered into an agreement with the Chinese Government, May 17, 1916, to build 2,600 miles of railway, the routes to be agreed upon after preliminary surveys had been made. Several lines were in prospect and preliminary surveys were made in both North and South China but most of the routes were either unpromising or were found to infringe upon undeveloped concessions held by others. The survey of the Szechwan line is one of those most recently completed and proves that route to be one of the most promising. Whether it is eventually built, or not, the data collected by the engineers is a valuable addition to our knowledge of railroading possibilities in China.

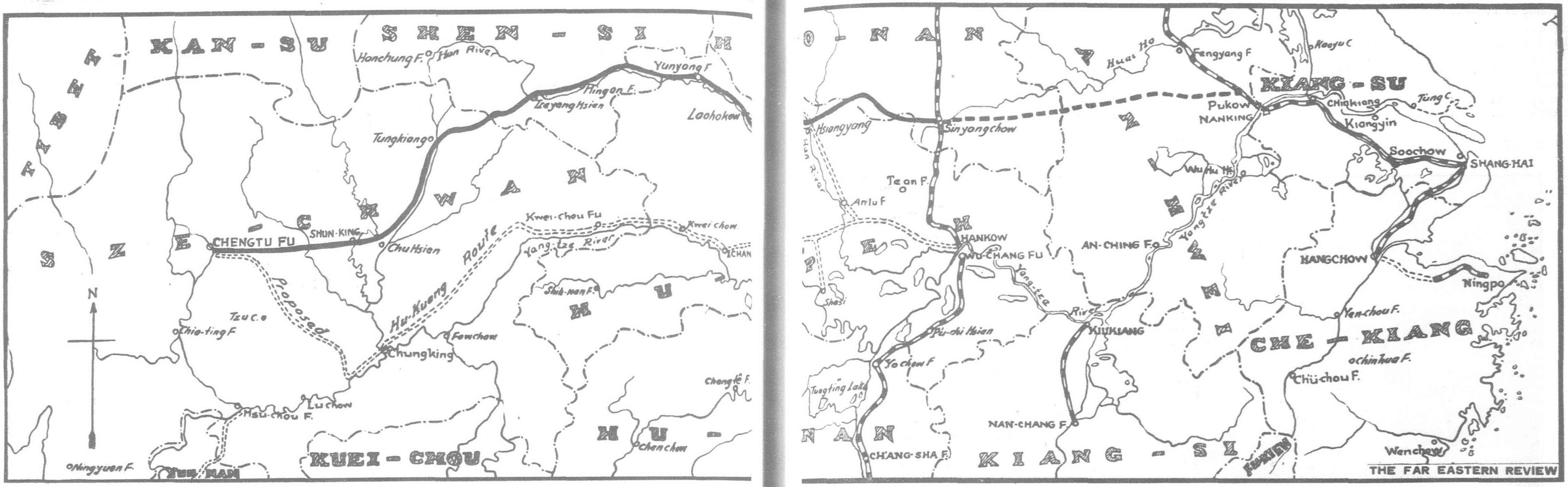
There is little reason to believe that the Chinese Government will question the wisdom of opening up the country which the proposed railway will traverse. A line into Szechwan will make military control over the province possible and would enable the Government to forestall the predatory invasions of the Tibetans and the Yunnanese and to bring order out of such chaos and anarchy as now prevail in the West. The British, however, have a prior claim and may be disposed to emphasize it. An agreement signed before the war gives the British the right to build a line from Pukow, on the Yangtze River, opposite Nanking, to Sinyang in Hunan, with rights of extension. The proposed American railway, if it starts from Sinyang would virtually be an extension. If it starts from any other point on the Peking-Hankow the future advantage of effecting a junction with the British line and of arranging for through traffic, would be sacrificed; while the difficulty of the transport of material puts the possible evasion of a conflict of interests which might be effected by building from Chengtu toward the Coast, out of the question. It seems much more likely that since the British capitalists interested are not in a position to undertake work on their concession during the war, they will not hold up the work of construction which will be such an immediate advantage to China, but will, upon arrangement, waive their claim to a possible extension which they may not be ready to undertake for many years to come.

Products and Resources of Szechwan

The province of Szechwan, or "Four Streams," is the largest province of China and is one of the most fertile and most densely populated. It has an area of 218,533 square miles, and its population is estimated at sixty to ninety millions. The eastern portion of Szechwan, to which particular interest attaches in connection with the proposed line of railroad, is an immense plateau 200 miles wide, north to south, by 300 miles long east to west, and embraces approximately 60,000 square miles. This section includes the best developed parts of the province of Szechwan. The western portion of the province contains range after range of high mountains which separate China proper from Tibet.

The agricultural products of this province are of the most diversified character. In former years opium was one of the most important crops, but now that the growing of the poppy is forbidden by law it is carried on secretly in remote sections only and to a very limited extent. The large areas heretofore used for growing the poppy are now extensively used for the cultivation of sugar cane, wheat, tea, etc.

Sugar is now the third agricultural product of the province in importance, the wheat grown is milled by machinery and the flour produced is of excellent quality and very white. Tea



PROJECTED RAILWAY TO CONNECT SZECHWAN WITH THE SEA

The heavy black line roughly indicates the route of the projected railway to be built under contract with the Siems-Carey Railway and Canal Company. The blocked line between Sinyangchow and north of Pukow, indicates the railway which is being built in agreement with the British and Chinese Corporation, work upon which was suspended shortly after the outbreak of war. The road between Nanking and Shanghai is in operation. The double dotted line running eastward from Chengtu along the Yangtze to Hankow is projected in connection with the Hukuang Railway agreement.

factories are established at Kiungchow, Tienchuan, Jungking, and other points, and the tea business is an important industry.

On account of the protection afforded by the mountains, which encircle the eastern plateau, the climate is mild and warm, and the crops very prolific. The soil is exceedingly fertile. In the southern portion of the eastern plateau the climate is semi-tropical, and as this portion borders on the Yangtze River the atmosphere is charged with moisture. Thanks to these conditions, three harvests are usually gathered each year in this section of the province. The principal crops grown on the eastern plateau are peas, beans, maize or Indian corn, rice, Irish and sweet potatoes, tobacco, millet, and sugar cane. The chief winter crops are peas, beans, wheat, and Irish potatoes; while rice, Indian corn, sweet potatoes, millet, tobacco, and sugar cane are the principal summer crops. Wood oil is also produced in large quantities. Cotton, herbs for medicines, and bamboo are also grown and exported in considerable quantities. Forests of oak, pine, and cypress are found in the northern part of the Kaihsien district. The principal exports from the Chengtu district are silk in its various forms, fibers, hemp, and ramie, grass cloth, sugar, tea, wheat, rhubarb, and medicines; while the northwestern portion of the province exports large quantities of wool, hides, medicines, musk, sheepskins, and furs.

The chief imports are tea, rice, Chinese wines, cotton goods, velvets, shirtings, cotton yarn, drills, braids, boots and shoes, cigarettes, etc.

Minerals

For centuries the province of Szechwan has been famous for its wonderful mineral resources, but up to the present time no thorough investigation has ever been made and no reliable information is available concerning the nature and the extent of the mineral resources of this province. Undoubtedly, in the future considerable attention will be given to the development of mineral resources in this province. The principal minerals found in Szechwan are gold, silver, copper, iron, lead, coal, antimony, salt, mica, jade, saltpeter, gypsum, and quicksilver. In the eastern portion of the province there is an immense area of over 20,000 square miles which consists of horizontal mesozoic and tertiary rocks overlying tilted rocks of the carboniferous age.

Coal and iron are extensively mined in the carboniferous rocks surrounding the Red Basin, as the area referred to is called, while salt and petroleum are obtained within the Red Basin by boring wells varying in depth from 1,700 to 3,000 feet. The Red Basin was formerly the bed of a great lake and in addition to the salt and petroleum, natural gas is also found at various points and is used extensively by the local people. It is said that the chief gas well has been supplying gas for 280 years. Tzeliutsing and Kiatingfu are the centers of the petroleum and salt industry, and although situated only 35 miles apart, there are between 8,000 and 10,000 salt and petroleum wells located between these two places. At Tzeliutsing there are about 3,000 of these wells producing 400 tons of brine and 100 tons of oil per day. The brine is a saturated solution which by evaporation yields about 20 per cent, or 70 tons, of clean white salt per day. These wells take from one to three generations to sink, it being said that no well has been sunk in less time than 30 years. The methods used are very crude and primitive; the brine and oil are run through settling tanks where separation is effected by specific gravity. The natives consider the brine more valuable than the oil; in fact, if the well produces over 50 per cent oil it is not considered worth operating, as the demand for salt is far greater than the demand for oil.

The coal found in the Kaihsien region is said to be of good quality and very abundant. It is used largely in the evaporation of the brine. The iron ores are hematite and limonite of high grade, although the extraction is low, averaging about 45 per cent. These ores are smelted in coal and charcoal furnaces, limestone being used for fluxing. The product is exported as pig iron.

From the Chienchang Valley, through which flows the Anning River, on the east to the Tibetan frontier on the west, and from Tatsienlu on the north to the Chin Sha River on the south, there is a section of country with an area of 40,000 square miles which is said to be without doubt richer in mineral wealth than any part of China, and one of the most highly mineralized sections in the whole world. This region is full of lodes and veins carrying gold and metallic ores, while the streams and rivers contain many deposits of alluvial gold. The lodes are worked in a very primitive way under Chinese supervision. The alluvial gold has been washed for hundreds of years, there being 15,000 men at times engaged in this work in the sands and bars of the Yalung River. The most important gold mine in this section is known as the Maha, which has been worked for the past twenty years. There are also found in Sichang District veins carrying ores of gold, copper and lead, also ores running high in silver. These ores are also found in various other places to the north and south of the Sichang District.

Products

The products of the province of Szechwan for the year 1914—the last normal year—are given below under the four classifications: Agricultural Products, Fruit and Nut Products, Miscellaneous Products, and Mineral Products.

The principal agricultural products were: rice, 10,185,618 tons; peas and beans, 1,905,962 tons; wheat, 1,112,393 tons; sugar cane, 912,915 tons; and sweet potatoes, 905,551 tons. Agricultural products totaled 16,152,895 tons, and were valued at $1,177,364,136 Mex.

The chief nut and fruit products were peanuts, 23,907 tons, and oranges, 30,759 tons. The nut and fruit products aggregated 80,031 tons, valued at $4,164,704.

The miscellaneous products totaled 44,608 tons and were valued at $62,709,185.

The principal mineral products were coal, 314,375 tons; salt, 29,262 tons; and iron, 8,053 tons. The mineral products amounted in all to 355,546 tons valued at $4,403,836.

The grand total of all products of Szechwan for 1914 was 16,633,080 tons, valued at $1,248,641,861 Mex.

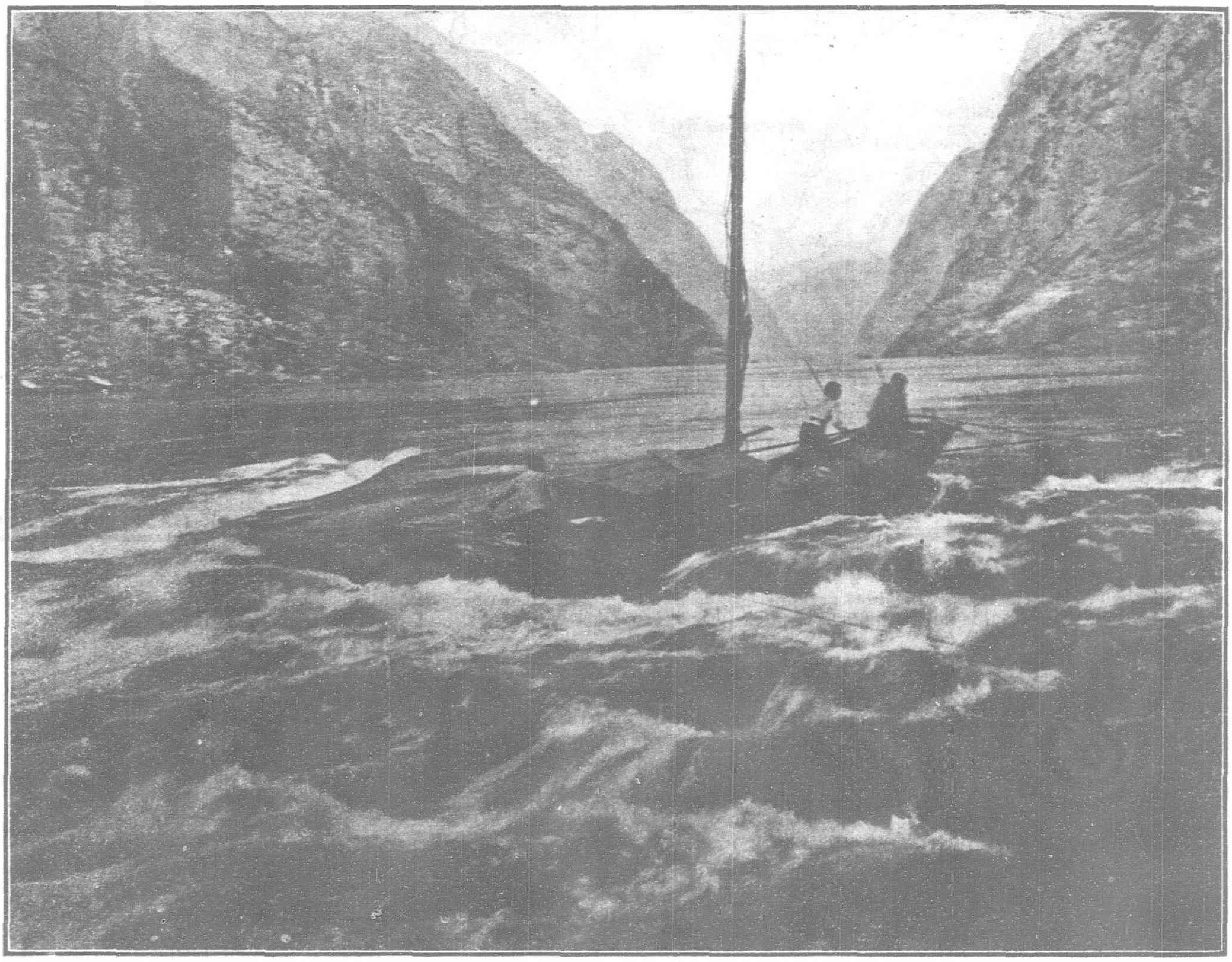
Agricultural Products in 1914

Name of Product	Tons	Value
Rice	10,185,618	$ 691,562,501
Wheat	1,112,393	114,929,602
Buckwheat	263,657	9,020,477
Maize	747,782	108,505,456
Sweet Potatoes..	905,551	7,512,456
Peas and Beans..	1,905,962	162,306,672
Rapeseed	47,756	1,933,965
Mustard	42	1,200
Ginger	1,949	307,965
Sugar Cane	912,915	5,042,477
Cotton	8,415	5,359,552
Tobacco	60,855	70,881,813
Total Agricultural Products ..	16,152,895	$1,177,364,136

Fruit and Nut Products in 1914

Name of Product	Tons	Value
Chestnuts	482	$ 33,296
Peanuts	23,907	2,735,103
Nuts	1,932	123,129
Olives	7,846	81,642
Pears	7,336	215,821
Apples	63	921
Peaches	5,010	13,594
Raisins	365	16,496
Plums	212	10,564

Name of Product	Tons	Value
Cherries	660	$ 23,146
Buddhas Hand	60	6,299
Azaroles	3	448
Oranges, and Mandarin Oranges ..	30,759	855,351
Pomegranates	1,231	34,746
Quinces	165	13,905
Strawberries	——	225
Total Fruit and Nut Products ..	80,031	$4,164,686



A Yangtze River Rapid, Szechwan

Miscellaneous Products in 1914

Name of Product	Tons	Value
Pig Bristles	1,561	$ 843,100
Indigo	4,664	9,027,983
Medical Plants	17,844	2,892,161
Chinese Wine	45	7,816
,, Alcohol	9,873	9,095,047
Stocks, etc., for paper	4,728	4,728,455
Native Soap	437	131,177
Leather Skins	3,600	19,888,759
Silk	1,570	15,897,757
Wool	286	196,930
Total Miscellaneous Products	44,608	$62,709,185

Mineral Products

Name of Product	Tons	Value
Gold	——	$ 24,039
Silver	18	1,209
Copper	1,089	176,852
Iron	8,053	325,949
Platinum	660	$ 7,661
Lead	66	5,066
Lime	2,013	14,366
Nitrate	10	2,936
Coal	314,375	2,243,288
Antimony	——	3,942
Salt	29,262	1,598,528
Total Mineral Products	355,546	$4,403,836

Summary of Products in 1914

Products	Tons	Value
Agricultural	16,152,895	$1,177,364,136
Fruit and Nut Products	80,031	4,164,704
Miscellaneous Products	44,608	62,709,185
Mineral Products	355,546	4,403,836
Total Products of Szechwan Province	16,633,080	$1,248,641,861

Import and Export Tonnage for Szechwan Province Handled via the Yangtze River Route

No complete record of the details of all imports and exports for Szechwan province is available but the principal route into and out of the province is the Yangtze River and the bulk of the tonnage, both import and export, is handled via this route, and passes through the ports of Ichang and Chungking. Some imports come into the province by transit passes.

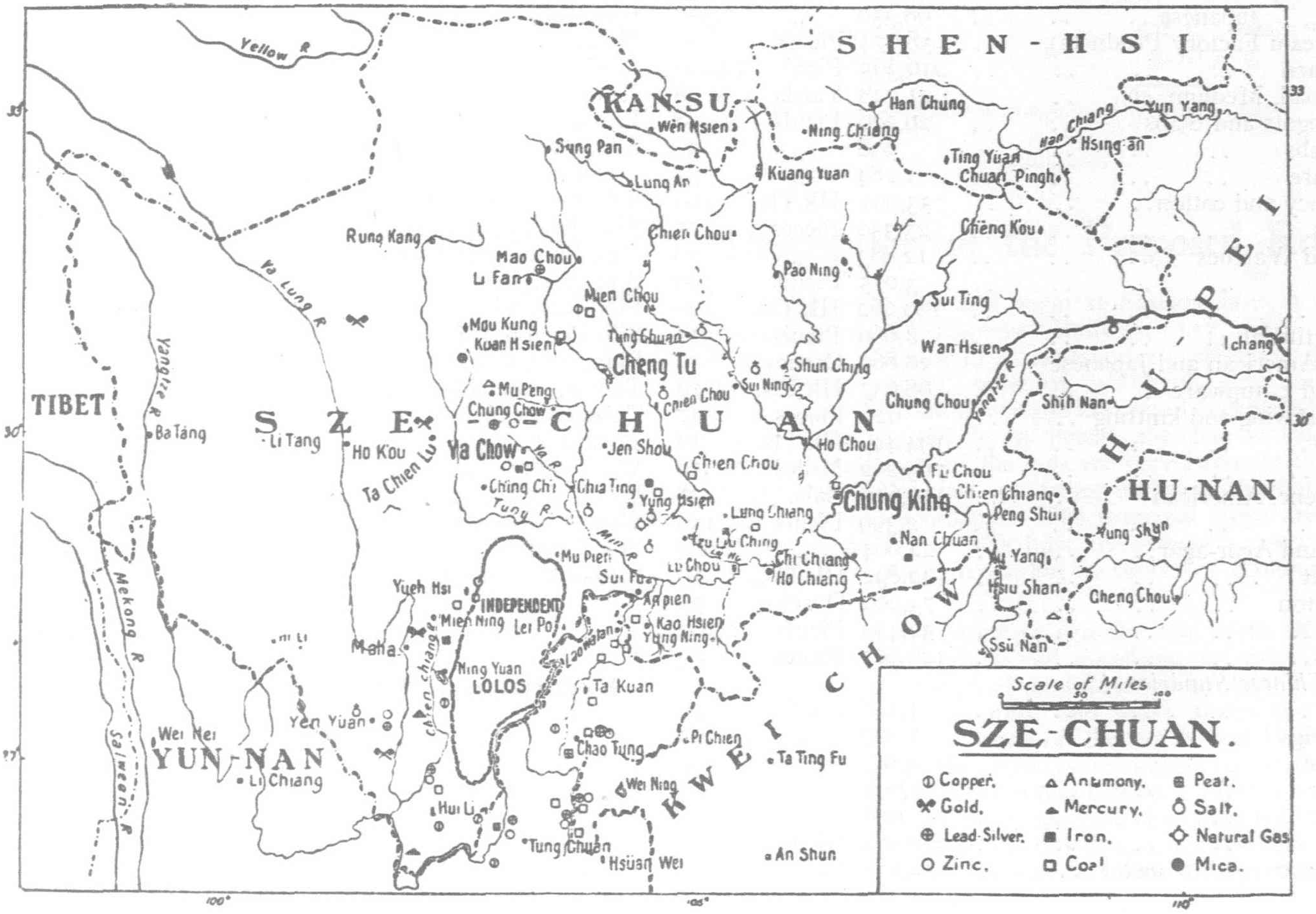
Statements Nos. 1 and 2 show the approximate tonnage for both imports and exports handled via the Yangtze River for the year 1914, the last normal year before the war, and will give a rough idea of the traffic at that time. Since then the figures have varied so much that they are of but little value as they do not reflect normal conditions. All tons are short tons of 2,000 lbs.

Statement No. 2 shows that for the year 1914 the approximate import tonnage via

the Yangtze River route was	138,483 tons
and the export tonnage was	323,126 „
making a total of	461,609 tons

and it may be assumed that if the total record for the whole province could have been obtained it would not have been far from 500,000 tons.

The total production of the province was during the same year 16,633,080 tons, which indicates that only about two per cent of the total production was exported from the province. The export tonnage would no doubt be greatly increased if adequate railroad facilities were furnished the province.



Map of Szechwan, Showing Mineral Resources

Summary of Tonnage via the Yangtze River During the Year 1914

(Taken from Chief Engineer Randolf's Report on the I-Kwei Railway)

From a study of the records of the Maritime Customs, Transit Passes, and Shipping Companies at Ichang, it appears that for the port of Chungking there entered and cleared from the west or upriver points 47 steamers and 23,879 junks, and that the 47 steamers carried 5,520 tons.

In order to get the total tonnage of the 23,879 junks it is necessary to take the total number of junks; viz., 41,253, that cleared both east and west, or down and up the river, with their total tonnage; viz., 789,342 tons, and divide the total tonnage 789,342 tons by the total number of junks 41,253 to arrive at the average tonnage per junk, which is 19.10 tons. Then the total upriver tonnage from and to Ichang will be approximately 23,879 junks averaging 19.1 tons each, equaling 486,089 tons. Summarizing the foregoing figures the total dead weight tonnage to and from Ichang both up and down the river operating west of Ichang will be as follows:

Statement No. 1

47 steamers at 100.4 tons each	5,520 tons
23,879 junks at 19.1 „ „	456,089 „
Total tons including both import and export tonnage	461,609 tons

The above tonnage is divided, as to imports and exports in the following manner:

Of the above total tonnage, 461,609, it was possible to obtain a detailed list of the different items that go to make up 181,138 tons, also a division of said tonnage into imports, 52,815 tons, and exports, 128,323 tons, as shown by the following statements—the imports being 29.2 per cent and exports 70.8 per cent of the whole tonnage.

Assuming that the whole of the 461,609 tons would be divided approximately into the same proportion as the 181,138 tons, for which details were obtainable; viz., 30 per cent imports and 70 per cent exports, this total import and export tonnage would be as shown in Statement No. 2 below:

Statement No. 2

Total import tonnage would equal	138,483 tons
„ export „ „ „	323,126 „
Making total import and export tonnage ..	461,609 tons

Statements Nos. 3 to 8 inclusive, give the details of the imports and exports for Szechwan for the 181,138 tons for which details were obtainable.

Partial List of the Imports into Szechwan at Chungking in 1914

Statement No. 3

Description of Goods	Quantity	Unit of Measure	Tons
Shirting, gray and plain	87,368	Pieces	619
Sheeting, gray and plain	4,620	,,	38
Sheeting, white	172,932	,,	920
Drills	2,920	,,	19
Chintzes and Plain Cotton Cloth	16,781	,,	94
Cotton, Italian, plain fast black	14,649	,,	94
,, ,, colored and figured	81,308	,,	544
,, Venetian, fast black	17,363	,,	94
,, ,, colored and figured	40,690	,,	225
,, Lasting	4,792	,,	19
Velvets and Velveteens	134,043	,,	56
Cotton Yarn, Indian	145,320	Piculs	9,688
,, ,, Japanese	98,350	,,	6,557
Drills (Steam Factory Products)	58,674	Pieces	281
Cotton Yarn	216,395	Piculs	14,426
Cloth, Broad, Medium, etc.	21,728	Yards	38
Copper Ingots and Slabs	29,220	Piculs	1,948
Tin in Slabs	998	,,	56
Bisho Ware	1,284	,,	75
Braid, fancy and cotton	53,991	Hk.Tls.	169
Cigarettes	23,350	Pieces	75
Clocks and Watches	12,883	,,	150
Cuttlefish	3,075	Piculs	300
Analine	199,062	Hk.Tls.	826
Indigo, artificial	4,669	Piculs	311
Genseng, American and Japanese	28,869	Catties	19
Lamps and Lampware	68,637	Hk.Tls.	70
Machine, sewing and knitting	626	Pieces	47
Medicines	194,446	Hk.Tls.	10
Needles	769,262	Milles	10
Oil Kerosene, American	119,610	Gals.	478
Pepper	2,399	Piculs	159
Seaweed and Agar-agar	24,064	,,	1,604
Soap, toilet	42,832	Hk.Tls.	50
Socks, cotton	73,209	Dozen	50
Soda Ash	32,449	Piculs	2,163
Umbrellas	126,901	Pieces	80
Chinese Sundries			
Candles	1,146	Piculs	76
Cassia Twigs	5,907	,,	393
China Root	2,883	,,	192
Chinaware	2,694	,,	179
Cigarettes	988	,,	66
Medicines	370,684	Hk.Tls.	20
Pipes (tobacco), white metal	52,581	Pieces	1
Total			43,289

Imports from Ichang by Transit Passes

Statement No. 4

Description of Goods	Quantity	Unit of Measure	Tons
Oil, Kerosene	1,777,100	Gallons	6,614
Seaweed	13,047	Piculs	870
Iron and Steel	3,229	,,	215
Sugar	5,059	,,	338
Cotton Socks	1,923	Pieces	1
Fans	387,440	,,	300
Needles	1,450,000,000	,,	96
Dyes	16,600	Drums	1,107
Bagging	7,200	Pieces	25
Total			9,566

Summary of Imports

Statement No. 5

From Chungking through Maritime Customs	43,289	tons
,, Ichang via Transit Passes	9,566	,,
Total Imports known	52,855	tons

Partial List of the Articles Exported from Chungking in 1914

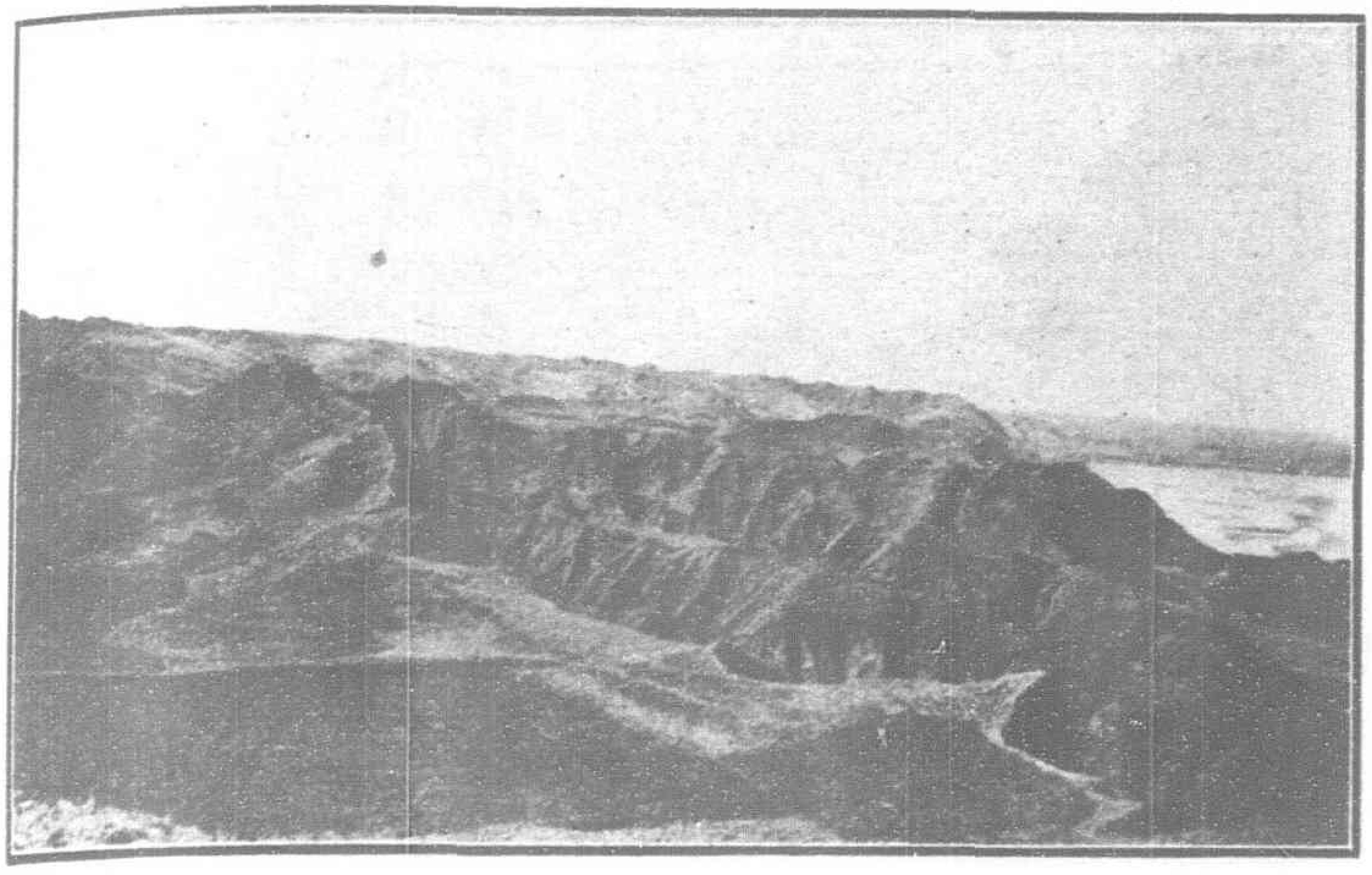
Statement No. 6

Description of Goods	Quantity	Unit of Measure	Tons
Bristles	16,019	Piculs	1,068
Cereals Wheat	63,519	,,	4,237
Feathers, Duck Fowl, etc.	6,631	,,	442
Fibers Hemp	33,387	,,	2,226
Fungus	10,611	,,	707
Grass Cloth	5,834	,,	389
Hides, Buffalo and Cow	30,042	,,	2,003
Intestines	2,120	,,	141
Medicines	1,592,149	Hk. Tls.	1,560
Musk	1,769	Catties	1
Nutgalls	14,555	Piculs	970
Rhubarb	12,663	,,	844
Silk, raw, white, not rereeled and not steam filature	308	,,	21
Silk, raw, white, steam filature	131	,,	9
Silk, raw, yellow, not rereeled and not steam filature	8,703	,,	580
Silk, raw, yellow, steam filature	2,021	,,	135
Silk, raw, wild	290	,,	19
Silk Cocoon, refuse	19,316	,,	1,288
Skin, Fur, Goat, untanned	1,032,944	Pieces	1,539
Tallow, vegetable	18,427	Piculs	1,229
Tobacco Leaf	4,410	,,	297
Turmeric	35,844	,,	2,392
Wax, white	4,314	,,	288
Wool, sheep	34,389	,,	2,299
Shoes and Boots	32,407	Pieces	70
Silk Piece Goods	280	Piculs	19
Umbrellas, cotton	33,158	Pieces	70
Total			24,843

Exports from Szechwan Through the Customs at Ichang in 1914

Statement No. 6—Continued

Description of Goods	Quantity	Unit of Measure	Tons
Beans, all kinds	31,278	Piculs	2,085
Books, printed	376	,,	25
Bristles	169	,,	11
Rice, duty free	27,337	,,	1,822
Rice, duty paid	1,632	,,	109
Wheat	34,654	,,	2,310
Charcoal	4,621	,,	308
Coal	30,705	,,	2,047
Coer and Con, ware	5,434	,,	362
Cotton, raw	20,002	,,	1,334
Feathers, Duck, Fowl, etc.	551	,,	37
Fiber, hemp	10,411	,,	694
Fungus	1,861	,,	124
Hides, buffalo, cow	19,895	,,	1,326
Lamp, black soot	48	,,	3
Lard	535	,,	30
Mats, bamboo	15,200	Pieces	44
Medicine	48,089	Hk. Tls.	20
Nutgalls	11,098	Piculs	740
Oil, wood	22,449	,,	1,497
Rapeseed	100	,,	7



EROSION OF EARTH BLUFFS ON THE HUAIHO, MILE 15

FREIGHT AND PASSENGER TRAFFIC, MILE 30

Seed, sesamum	17,248	Piculs	1,150
Seed Cake	17,875	,,	1,198
Silk, raw	75	,,	5
Silk, cocoon refuse	414	,,	28
Skins, fur, goat, untanned ..	12,000	Pieces	200
Tallow, animal	1,485	Piculs	99
Tea, black	15	,,	1
Tobacco Leaf	1,214	,,	81
Varnish..	8,442	,,	563
Wax, vegetable crude.. ..	4,146	,,	275
Total Export of Ichang			18,361

Exports into Szechwan Province Under Transit Passes

Statement No. 7

Description of Goods	Quantity	Unit of Measure	Tons
Salt	1,171,409	Piculs	78,093
Human Hair	12,907	Pkgs.	2,531
Cow Glue	247	,,	115
Crucibles	1,937	,,	172
Lead	4,427	Bars	157
Vegetable Goods	34,645	Pkgs.	2,772
,, Cakes	11,003	,,	1,024
Vegetable, salted	6,114	,,	205
Raffia Grass	116	,,	25
Buffalo Horns..	134	,,	25
Total..			85,119

Summary of Imports and Exports

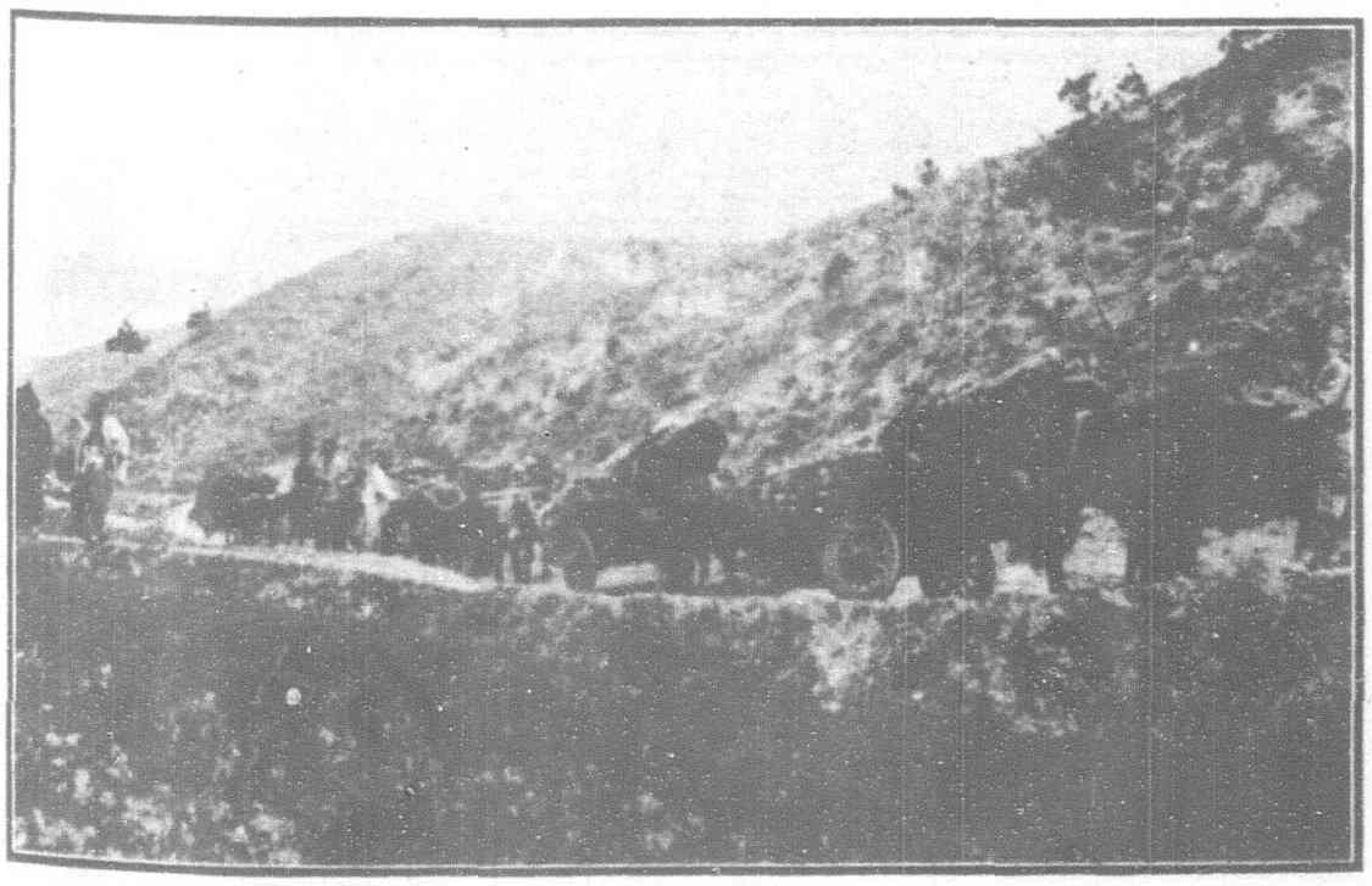
Statement No. 8

From Chungking, Maritime Customs	24,843 tons	19.4 %
,, Ichang, ,, ,,	18,361 ,,	14.3 ,,
By Transit Passes	85,119 tons	66.3 %
		100 %
Total Exports known	128,323 tons	70.8 %
Summary of Imports	32,815 ,,	29.2 ,,
Total known detailed tonnage ..	181,138 tons	100 %

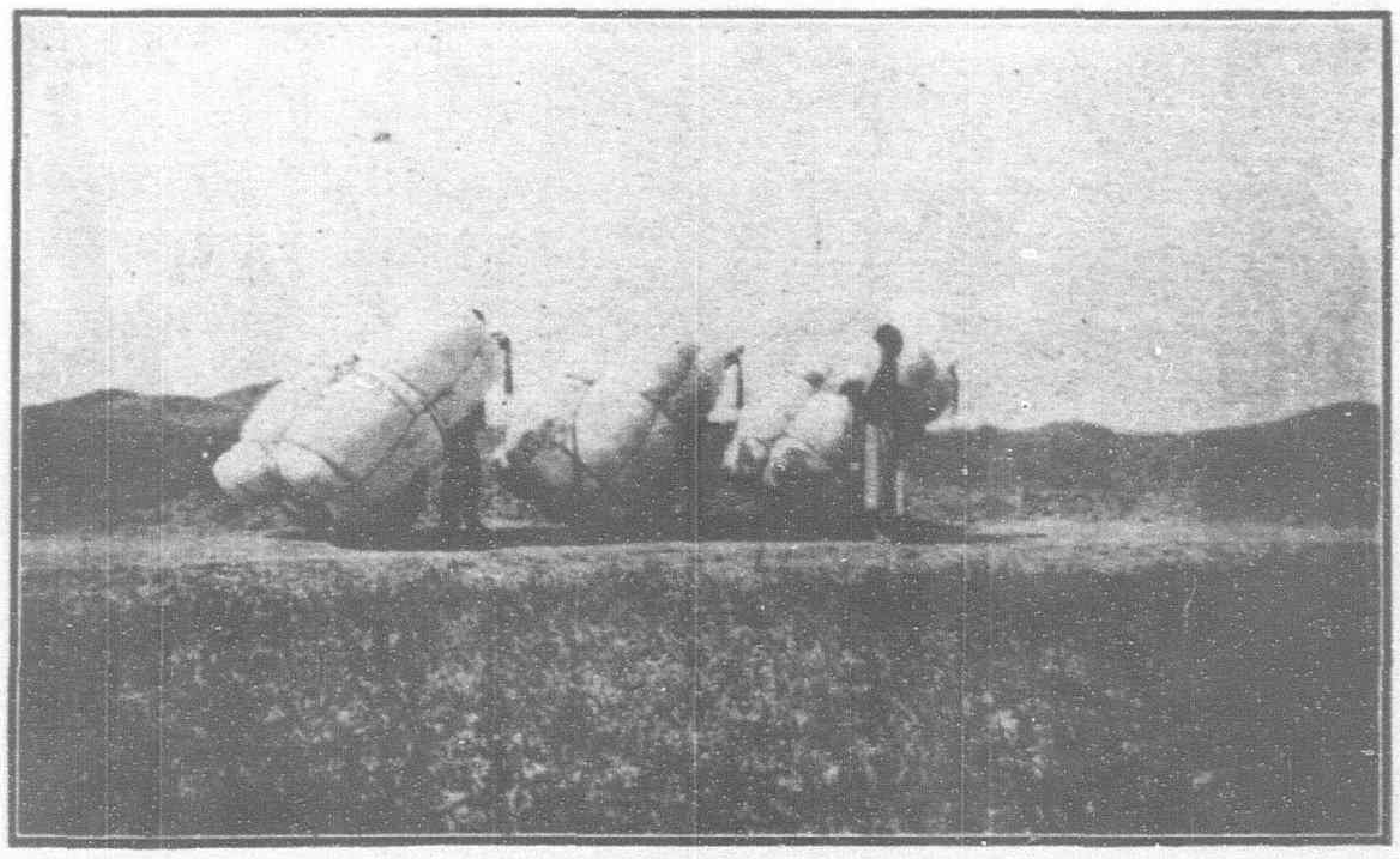
Description of the Proposed Route

The projected line will begin at Sinyangchow, a station on the existing Peking-Hankow Railway, 133 miles north of Hankow, and will run in a northwesterly direction through a heavy, rolling country, some of which is quite rough. The divide between the Shih River and an easterly branch of the same stream will be crossed by a tunnel 460 feet in length. The bottom lands and some of the hills are very intensely cultivated—thirty per cent of the total area being under cultivation—and the country is thickly populated. The principal crops are rice and wheat, but mostly rice. The hills are generally covered with a small growth of young trees, but no timber of commercial value is available.

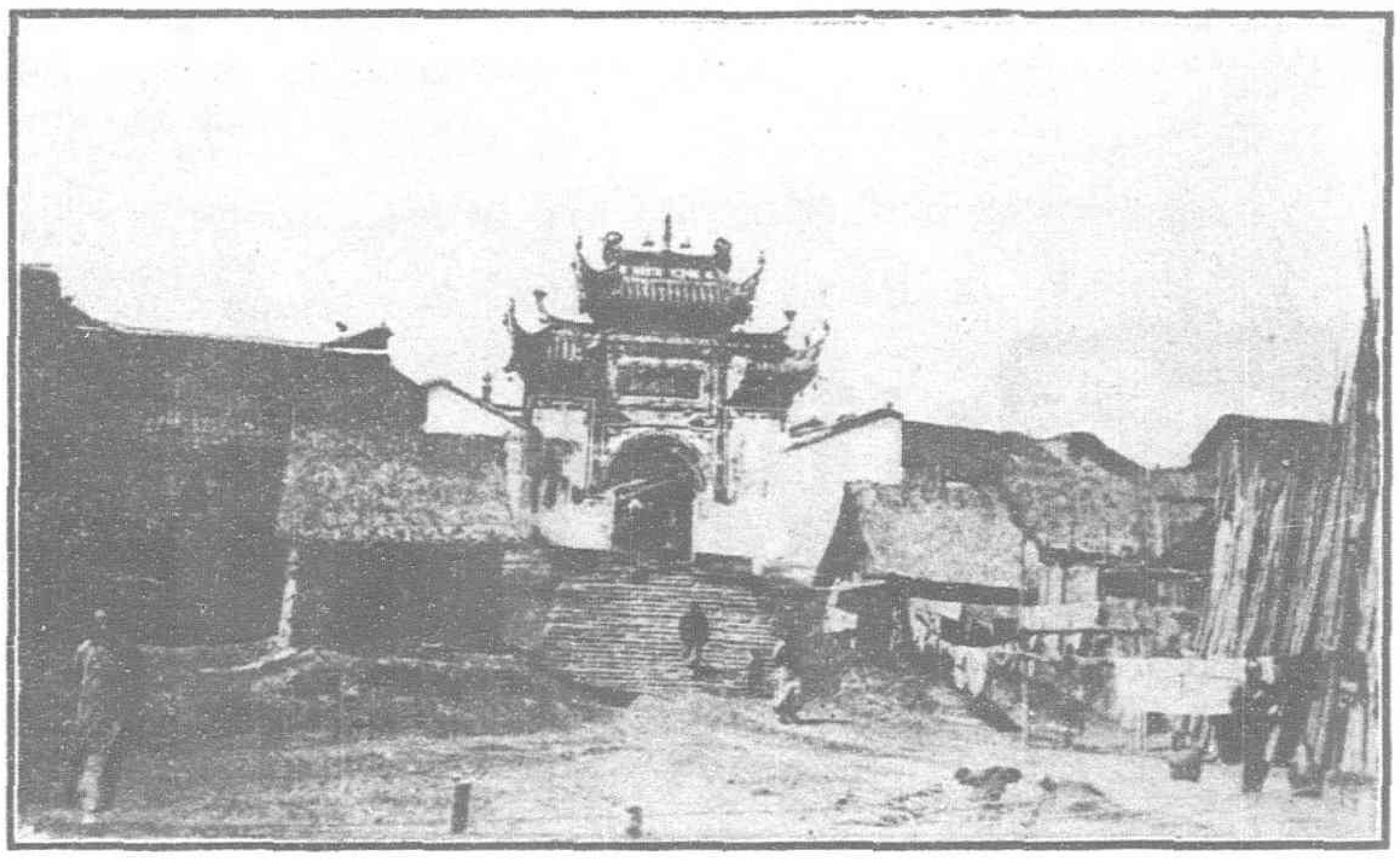
It was found necessary to run the line north of the direct course between Sinyangchow and Fancheng in order to skirt a very high and rough range of mountains which lies in the direct line between these two cities, and which forms the boundary between the province of Honan on the north and Hupeh on the south. In addition to the tunnel, considerable rock work will be encountered in construction on this section. Thirteen miles from Sinyangchow a plate girder bridge 1,200 feet long will have to be built over the Yueh River, which will lead the line up the valley of the river through a beautiful farming country, thickly settled



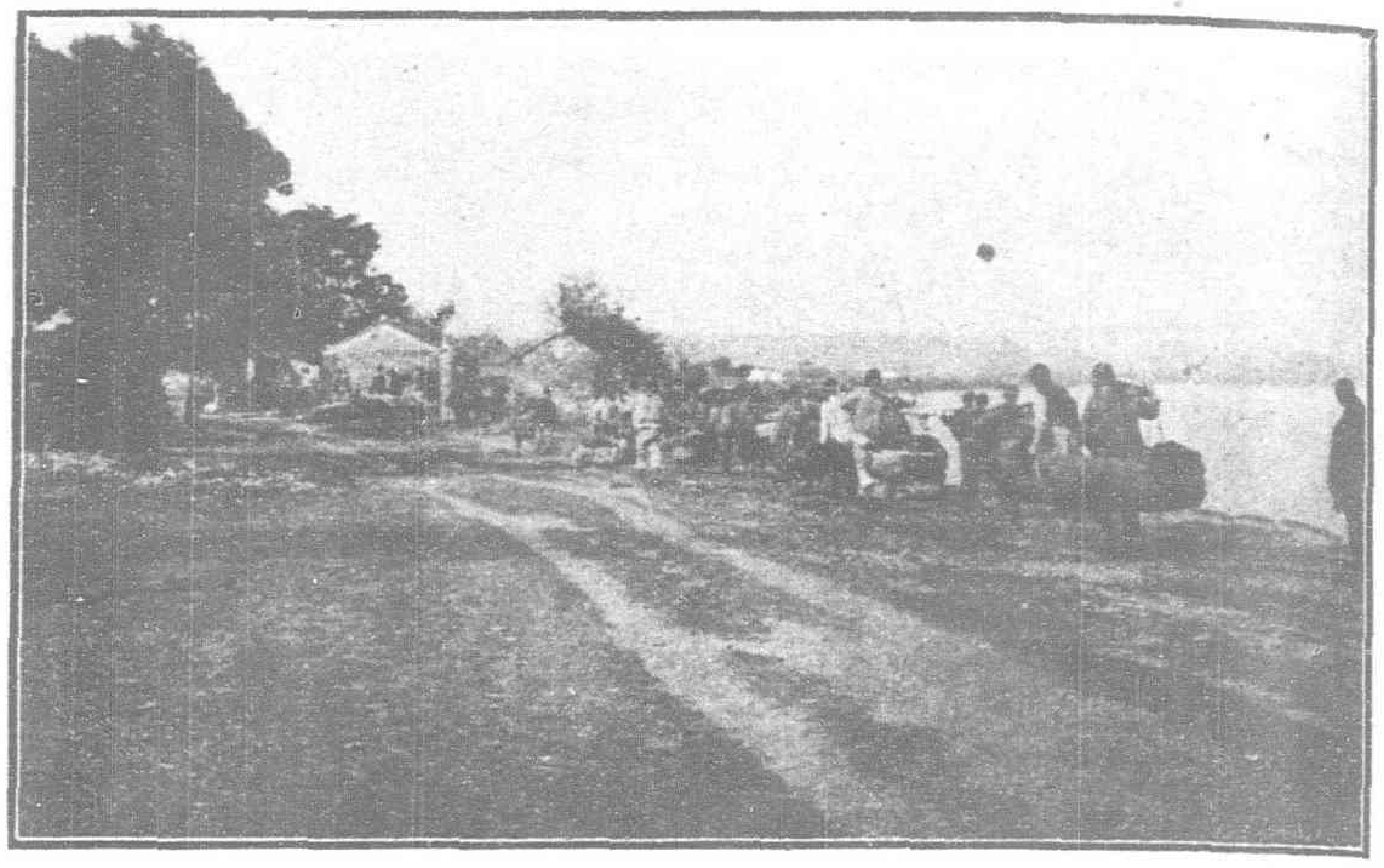
CAST-IRON WHEEL CARTS NEAR KUMIAO



TRANSPORTATION OF COTTON BY WHEELBARROWS, MILE 136



Fancheng, Along the Waterfront, Mile 136



Coolie Train on the March Leaving Hsiangyang, Mile 136

and intensively cultivated, approximately forty per cent of the total area being under rice and wheat. The line parallels the main range of mountains which lies to the south, eight to ten miles distant and proceeds in a northwesterly direction through the foothills, passing over a summit thirty miles from Sinyang through a tunnel 400 feet in length. For two miles it follows the summit and then descends to the Huai River, crossing the river over a plate girder bridge 540 feet in length and traversing a rough strip of country, cultivated in the valleys only. To the north of the line there is a large cultivated area under rice and wheat, and from mile thirty-six to mile fifty the line runs along river valleys in a more northwesterly direction, the country to the north being nearly level, intensively cultivated, densely populated, and appearing to be very prosperous. Approximately twenty-five per cent of the country is cultivated. A plate girder bridge 650 feet in length will be required to take the line over the Yueh River at mile thirty-eight, and at mile forty-five another one 480 feet long will be necessary to cross the Huai. Proceeding up the river valley the prosperous town of Tungpai, with a population of 25,000, is passed, and the drainage of the Huai is penetrated to mile fifty-five, where the line crosses the main divide through a heavy rock cut near the village of Kumiao, to the valley of the Yao River. The country generally is rough and hilly, with thickly populated and intensely cultivated valleys.

The line leaves the drainage of the Yao near mile sixty-eight and skirts the foothills of the mountains on the south in a westerly direction, crossing rolling country densely populated and intensely farmed, sixty per cent of the country being under wheat and rice, but chiefly wheat.

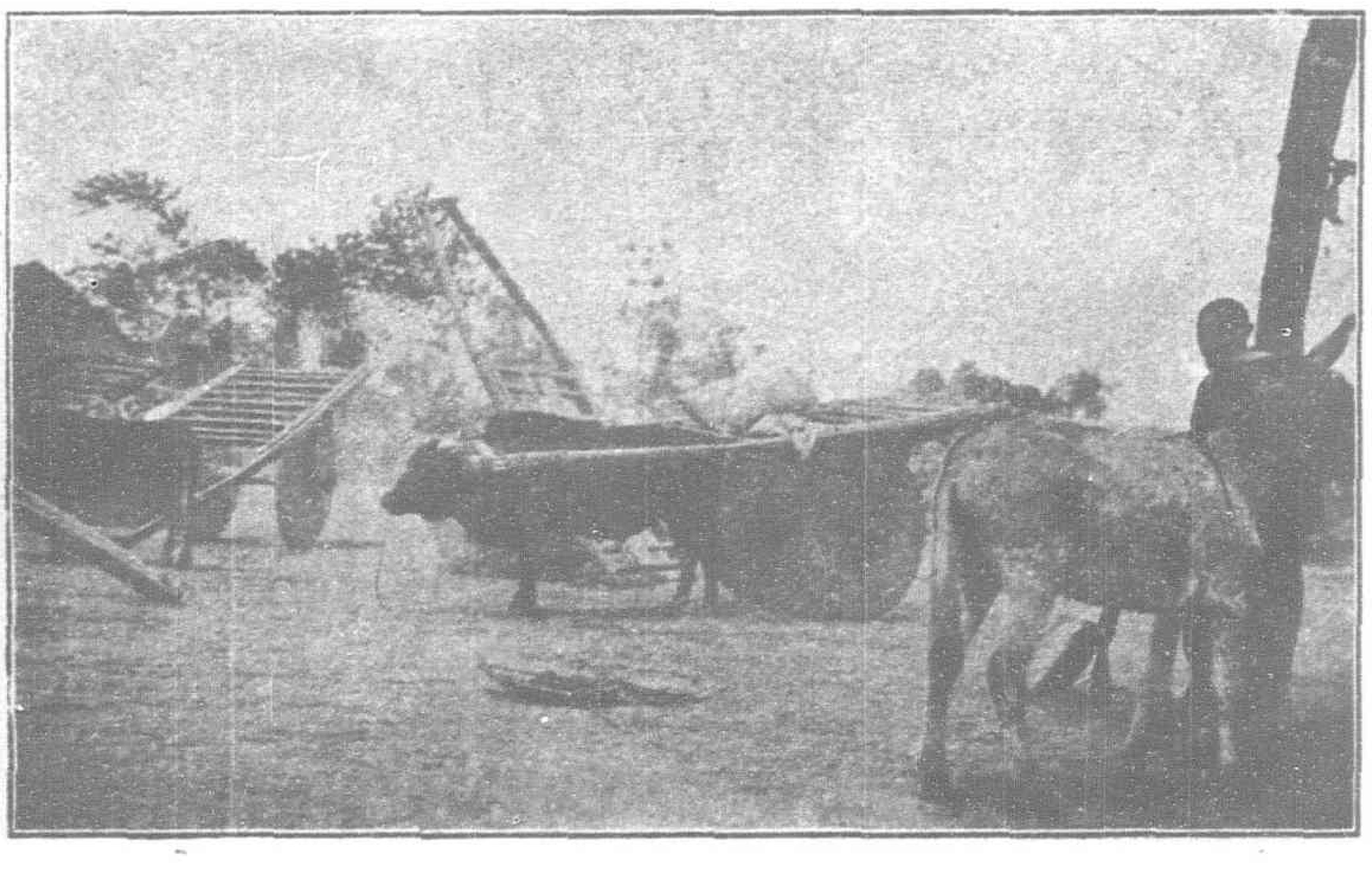
The province of Hupeh is entered at mile ninety-five, near the village of Huyun, the great valley of the Paiho lying parallel and about five miles to the northwest. This valley is an irrigated plain about ten miles in width and extends north about fifty miles. One crop of rice and one of wheat are raised each year. The irrigation system is well laid out and plenty of water is available, thus assuring intensive farming. Ninety-five per cent of the valley is under two-crop cultivation.

From mile ninety-five the line runs in a southwesterly direction across open country, which is practically level and which is one of the most beautiful farming sections that one could see anywhere, to mile 128.5, where it will cross the Paiho on a steel bridge 1,180 feet long. Thence the valley of the Paiho is followed to Fanchang, a flourishing city of 288,000 population, situated on the north bank of the Han River, 136 miles from Sinyang. The city of Hsiangyang (or Siangyang) is also a prosperous one, is located on the south bank of the river directly opposite Fancheng, and has a population of 337,000. Both cities are walled and are centers of considerable commercial importance. They are at the confluence of the Paiho and the Han River.

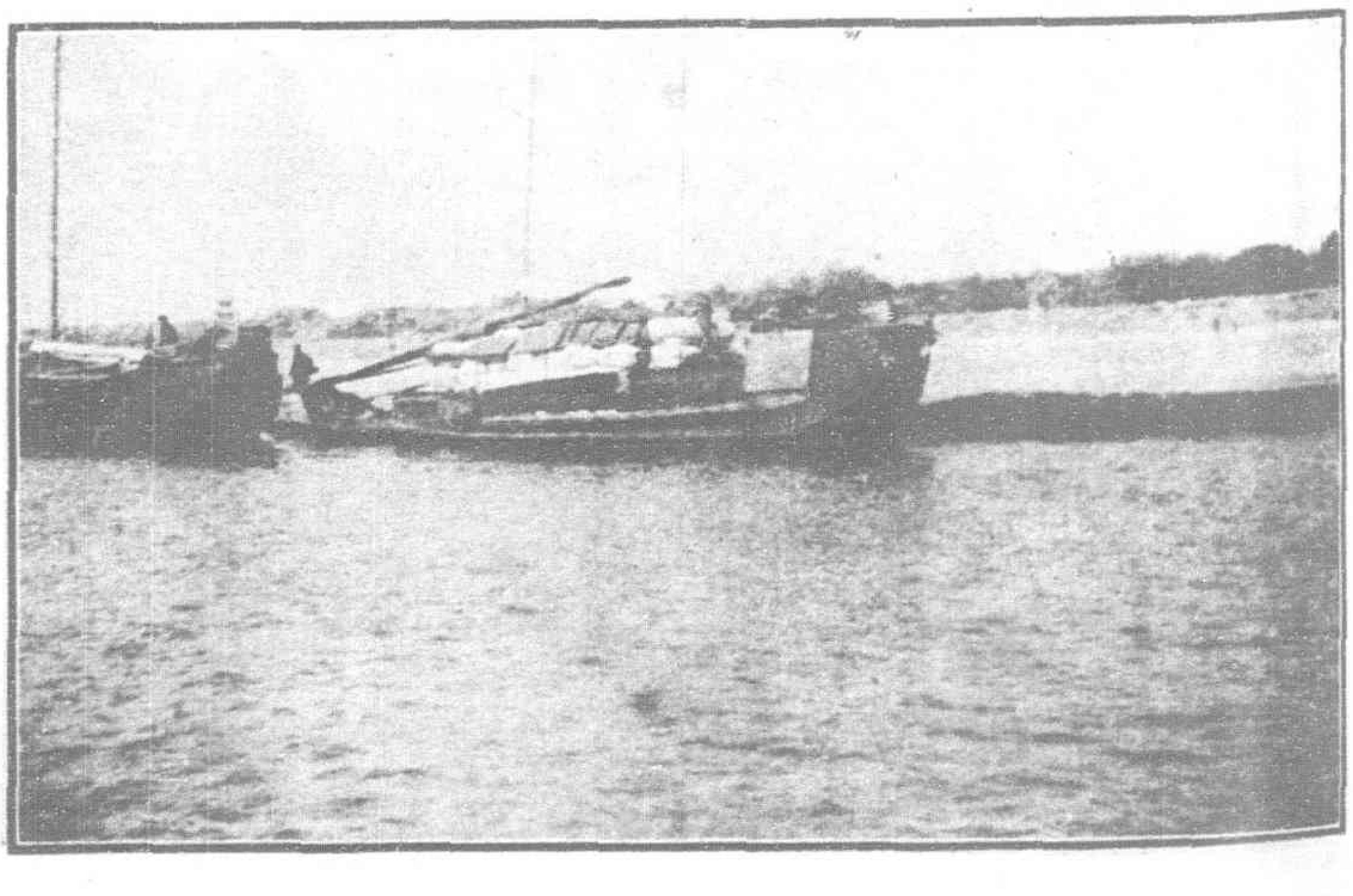
The proposed line through this section traverses a very extensive and prosperous country, densely populated and intensively cultivated, seventy or eighty per cent being under wheat, though considerable rice is grown.

From mile 136 the line runs in a northwesterly direction up the north bank of the Han River, following the valley which is approximately five to fifteen miles in width, densely populated and intensively cultivated. Numbers of prosperous communities inhabit the valley, and grow wheat and rice. At mile 175 the city of Laohokow is reached. It is situated on the north bank of the Han River, and is an important industrial center with a population of 150,000. During high water this point is reached by small power boats and launches from Hankow. Continuing up the Han valley through a very prosperous country the line passes Chunchow (population 40,000) at mile 219, and reaches the canyon at mile 235.

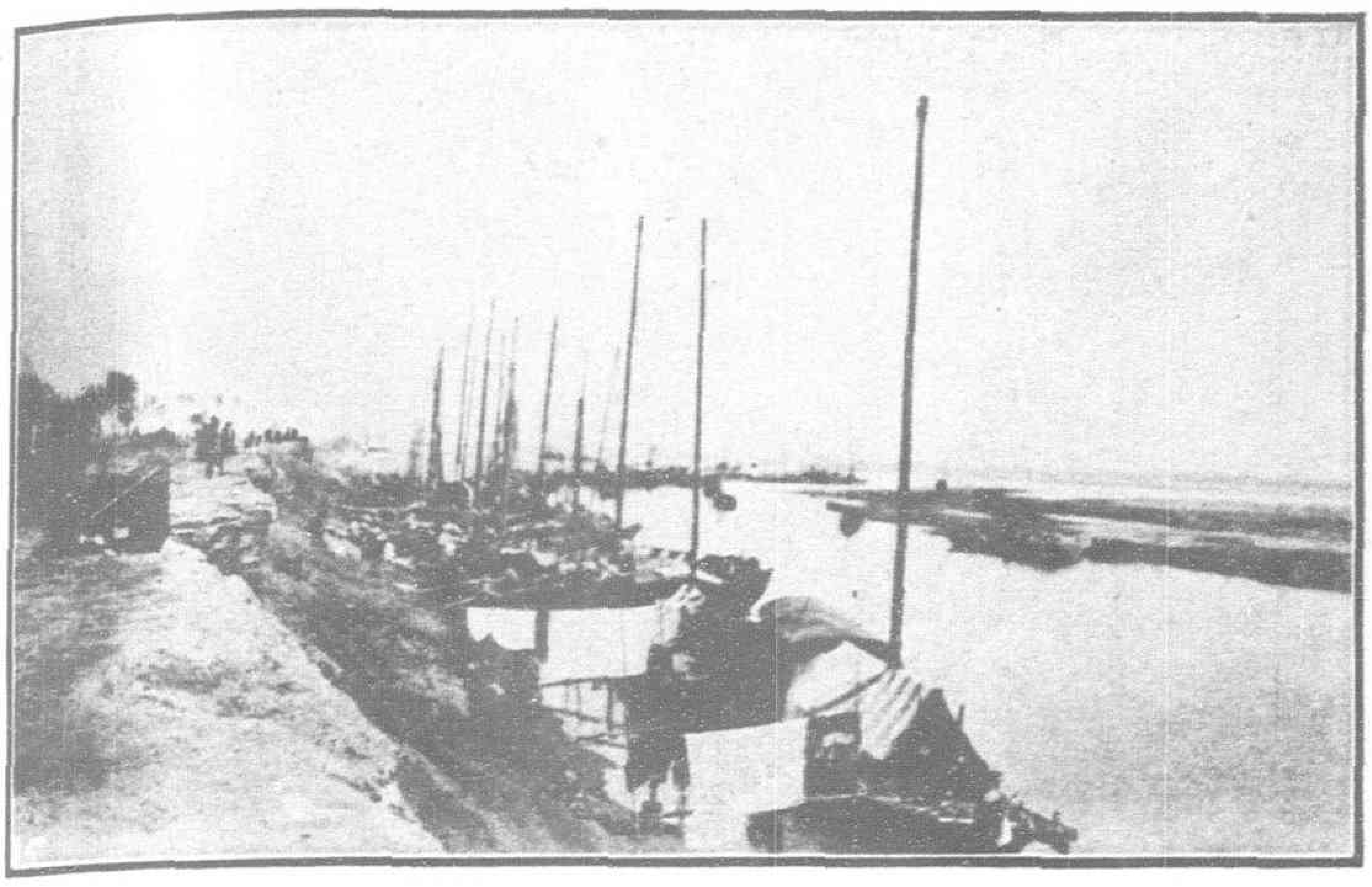
A tunnel 920 feet in length will have to be bored at mile 258, which will bring the line to the city of Yunyang (population 80,000) a mile farther on. From this place wood oil, sesamum seed, oil, hides, straw, paint, fruit, and hogs are exported.



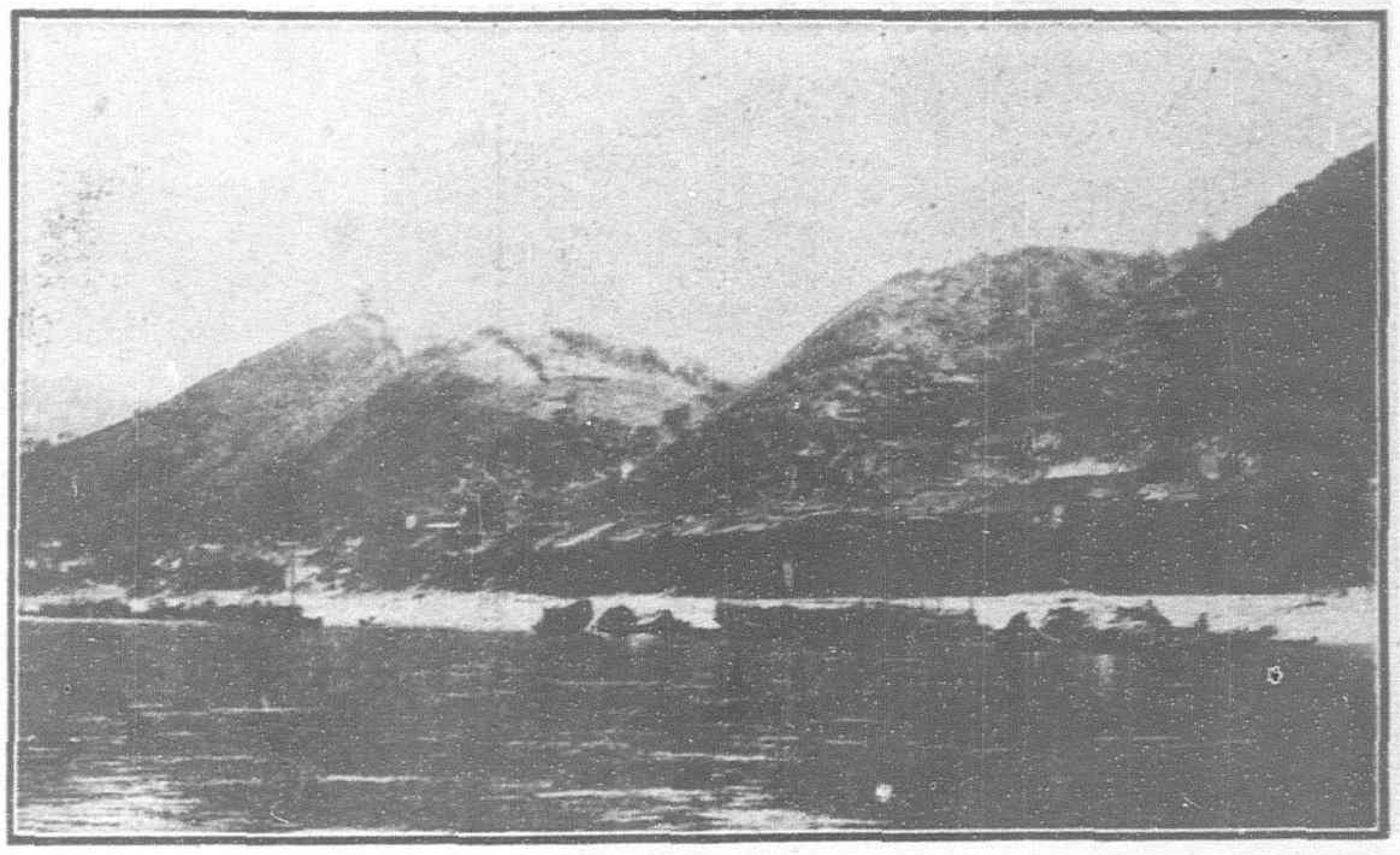
Bull Carts in Use at Fancheng



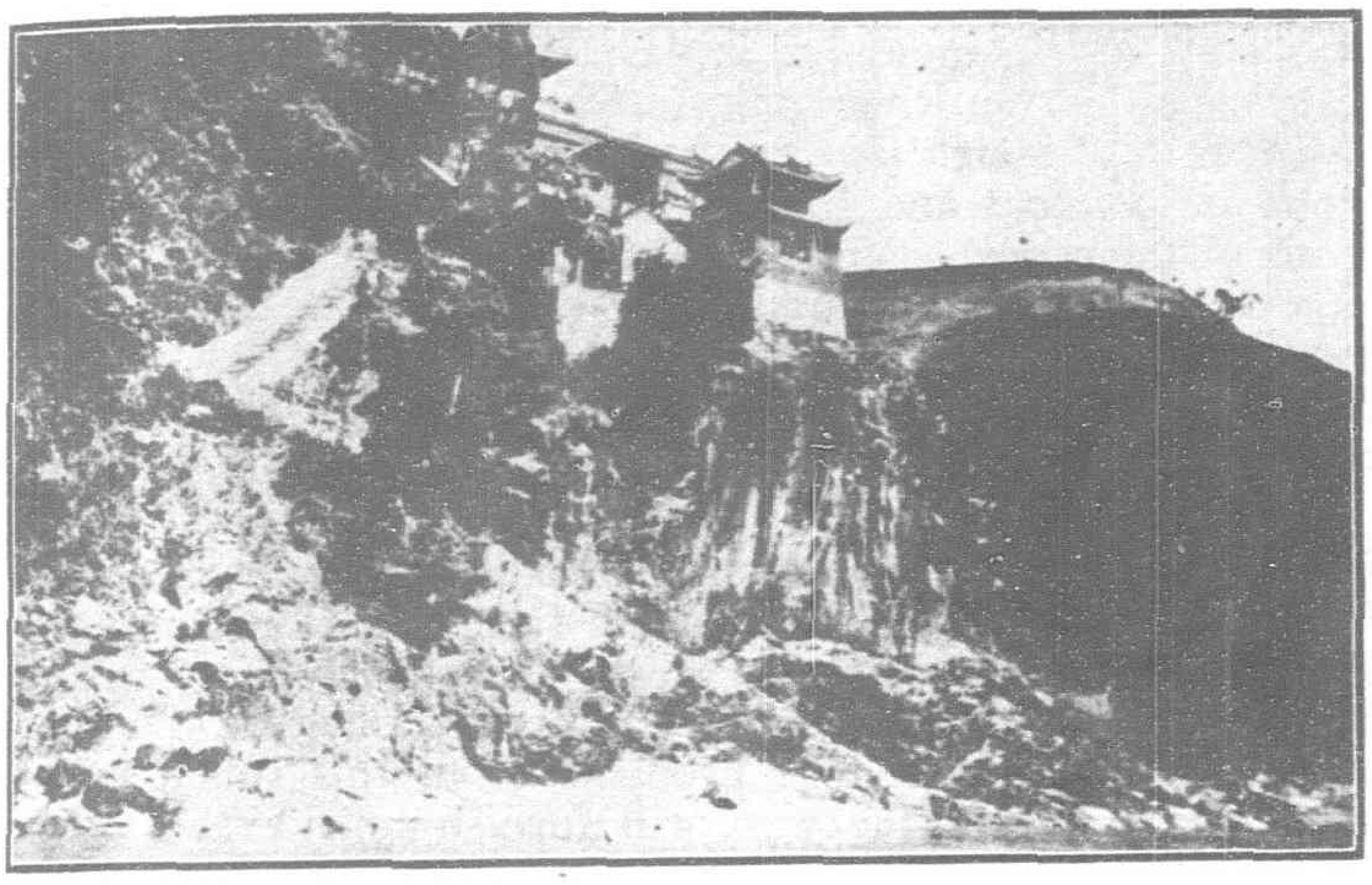
Transportation of Cotton by Junk on Han River



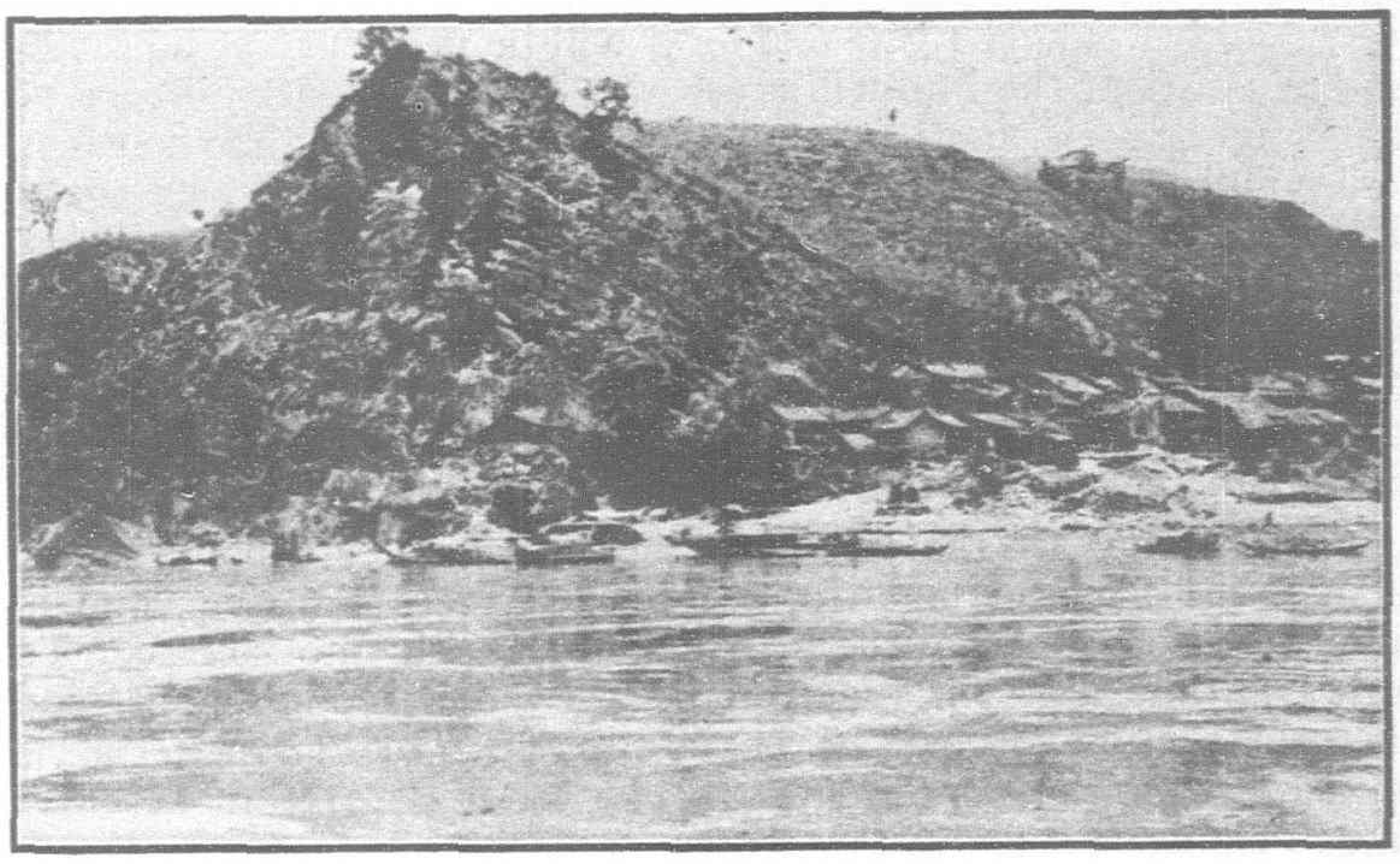
WATERFRONT AT FANCHENG, MILE 136



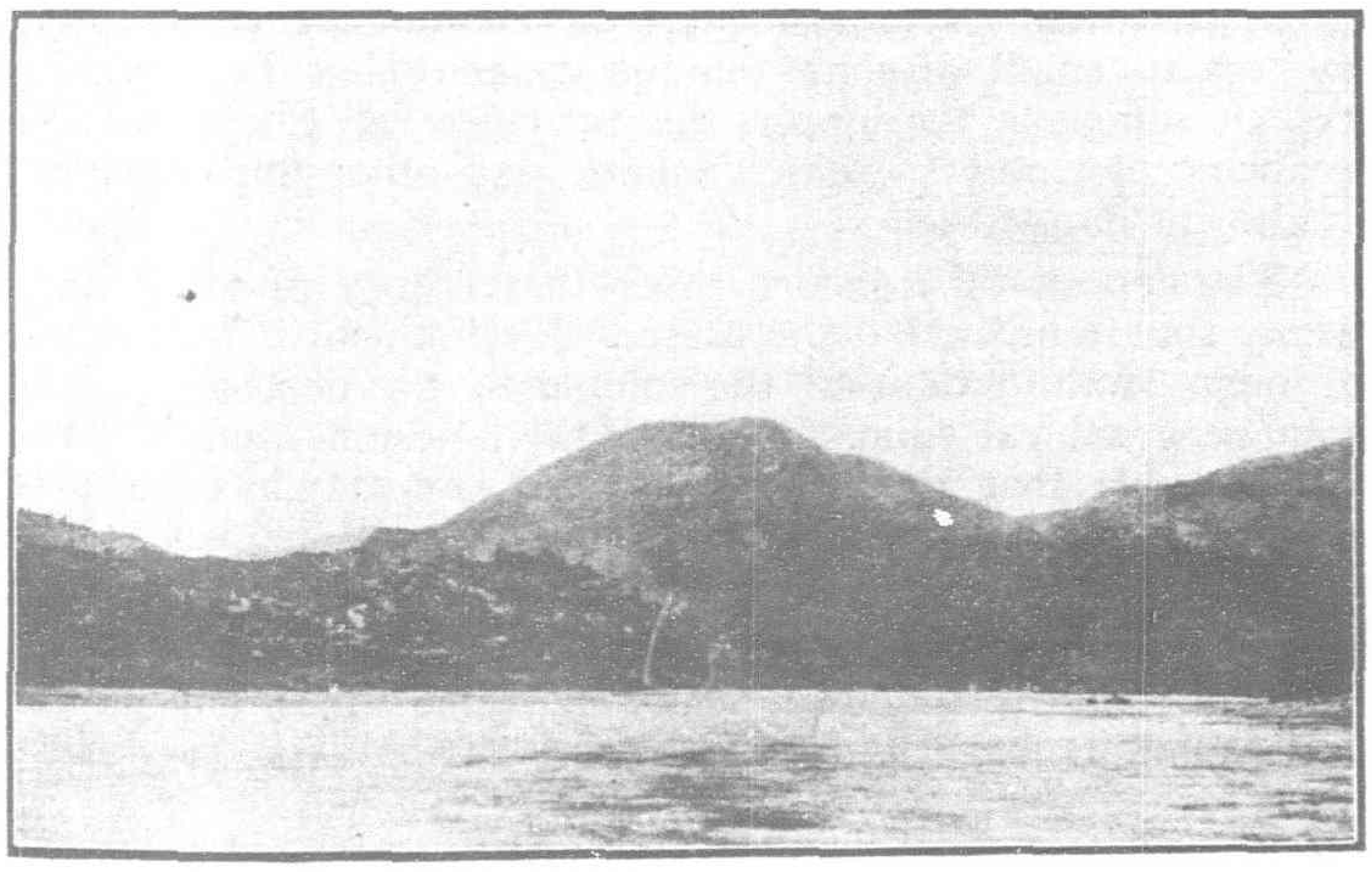
PAIHOHSIEN ON HAN RIVER, MILE 323



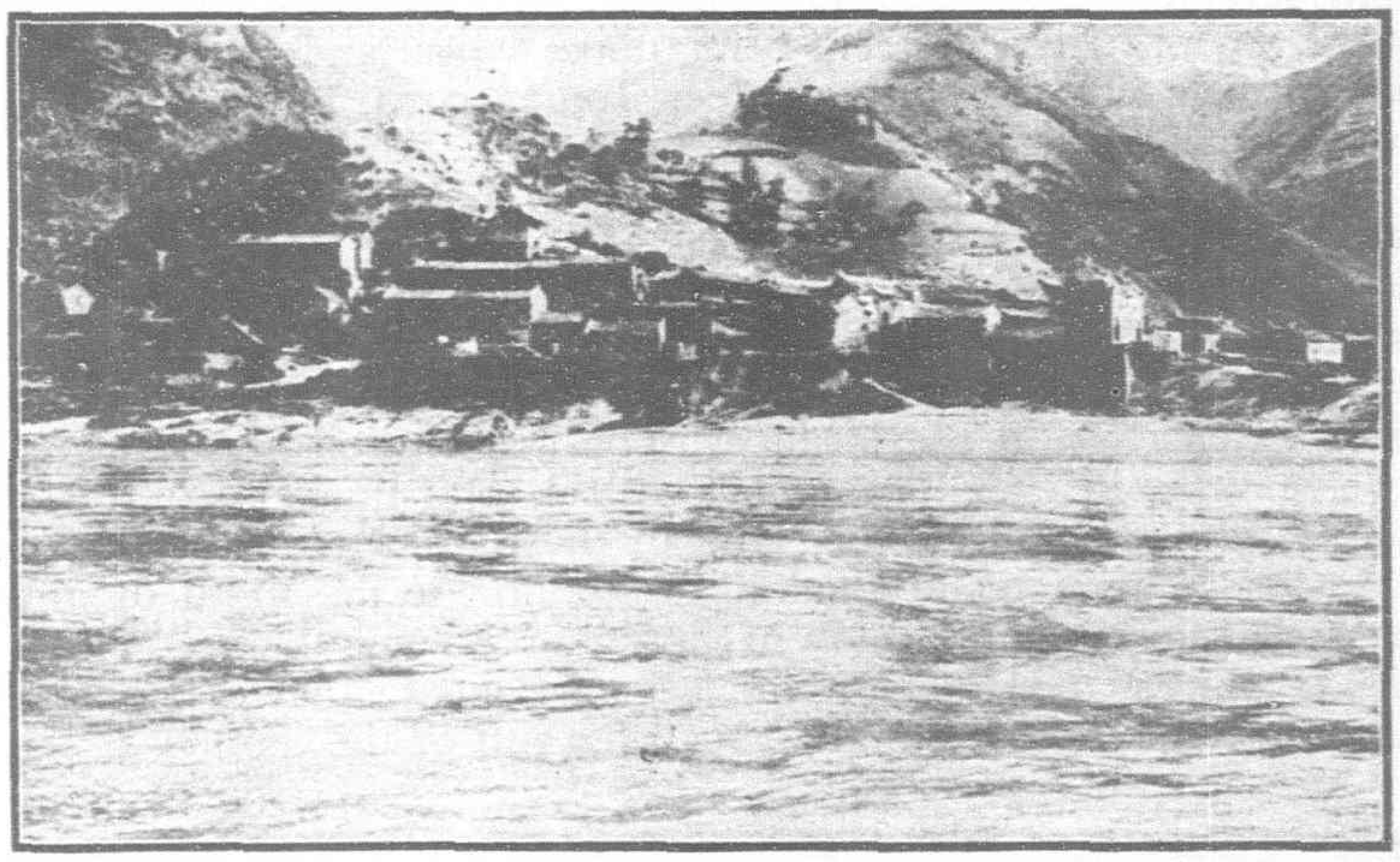
OLD SCHOOLHOUSE, OPPOSITE CHUNCHOW, ON HAN RIVER, MILE 220



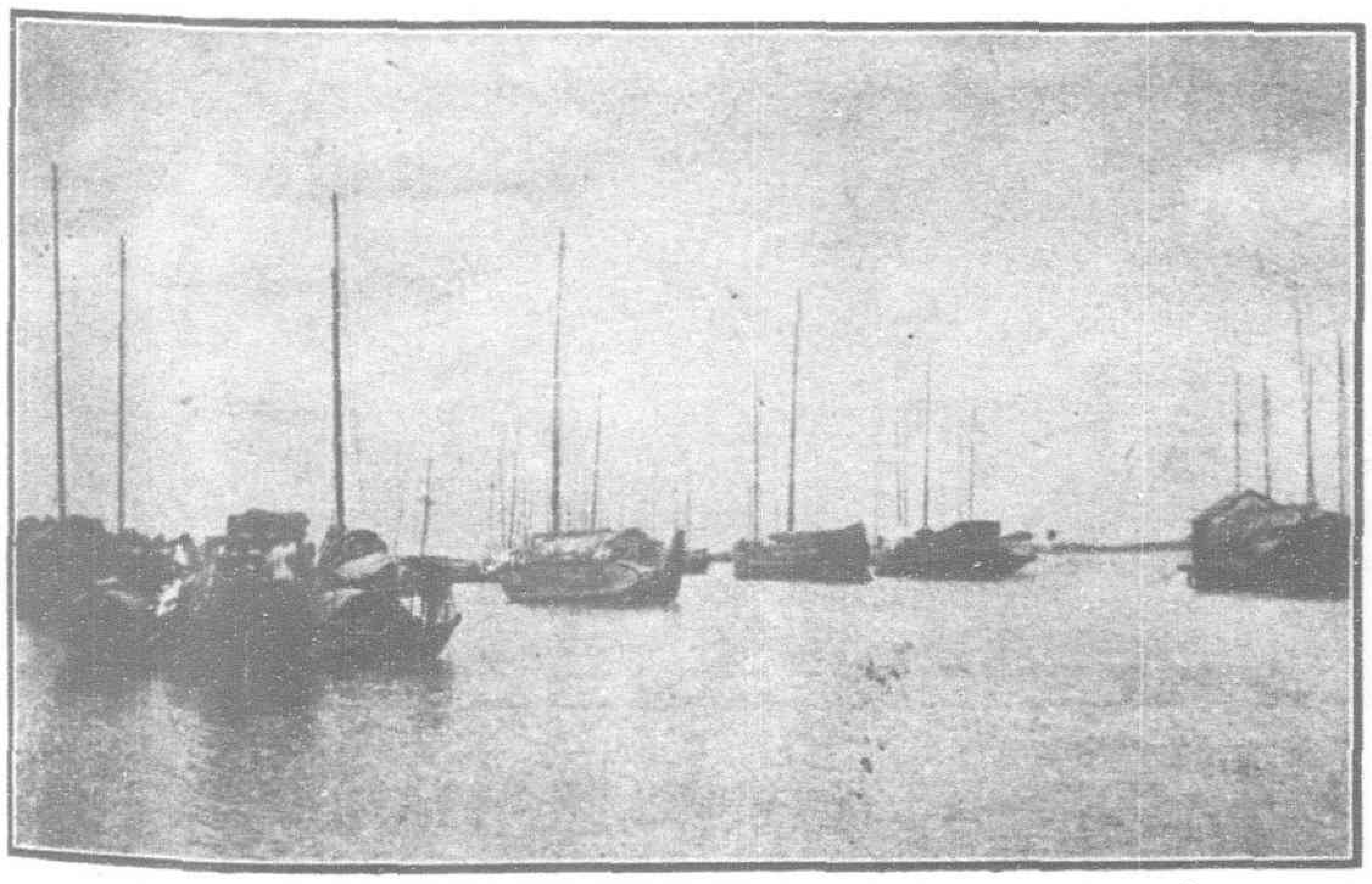
TIENHOKOW ON HAN RIVER, MILE 328



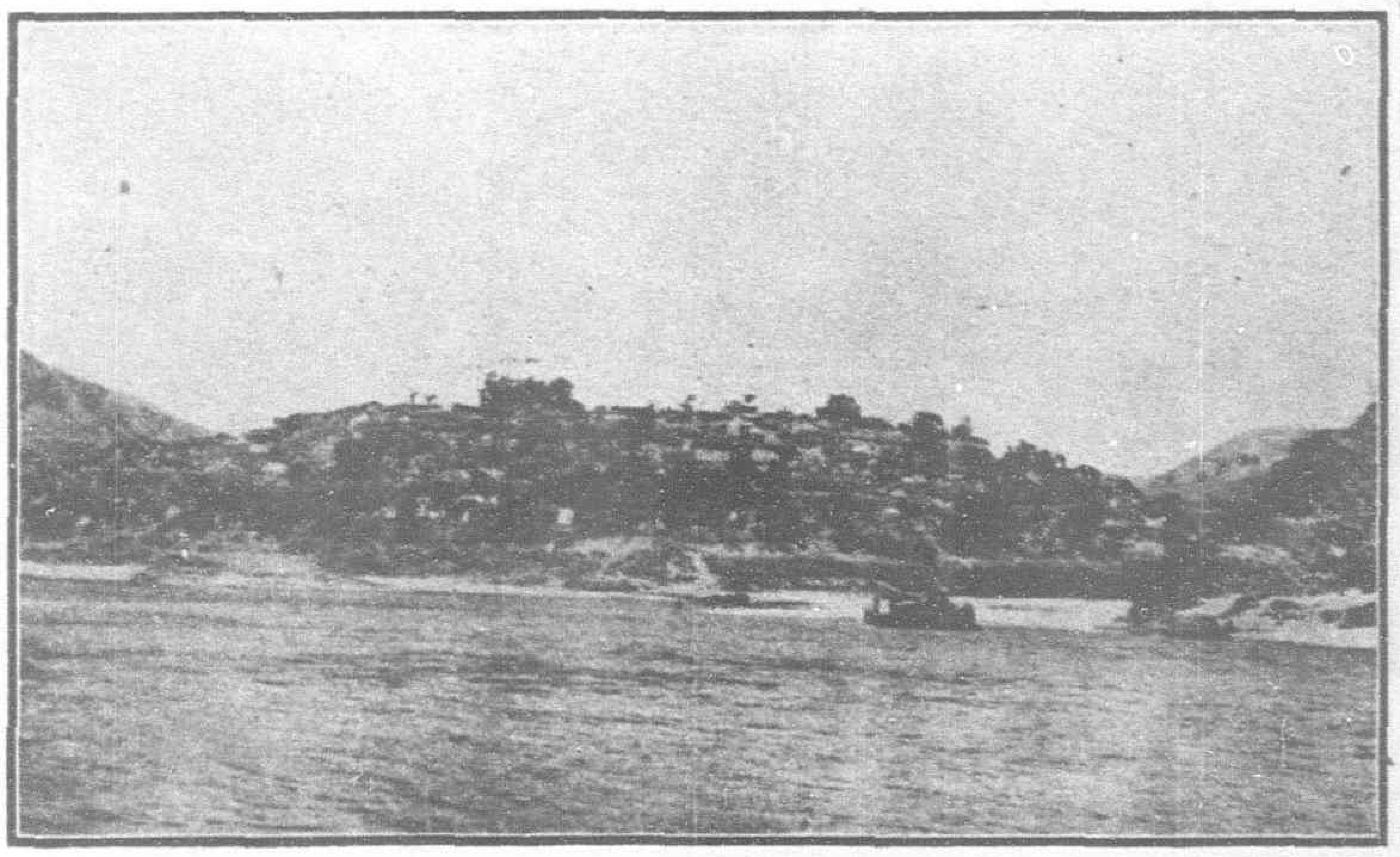
VIEW OF YUNYANG FROM HAN RIVER, MILE 260



CHIAHOKWAN ON HAN RIVER, MILE 330



SHIPPING ON HAN RIVER AT YUNYANG



HSUNYANGHSIEN ON HAN RIVER, MILE 370

TOWING BOAT UP HAN RIVER, ABOUT MILE 280

UPPER HAN NEAR TZEYANG, MILE 435

Another tunnel 1,700 feet long will be necessary at mile 280, and at mile 291 the line will cross the Han on a steel bridge of 1,800 feet, with another tunnel at mile 282, of some 800 feet, and another steel bridge of 1,600 feet across the river again. The Han valley on this eighty-five mile section is very rough and rocky, and high water forces the grade line up from fifty to seventy or eighty feet above low water, which will necessitate considerable protection work, and will make the cost of construction heavy. The rock is a hard limestone. About fifteen per cent of the country is under wheat and rice.

From mile 320 the line continues up the north bank of the Han to the city of Hinganfu, at mile 394 from Sinyang; and at mile 330 it passes from the province of Hupeh into Shensi. To mile 394 the country is very rough, rocky, and mountainous, and the construction cost will be heavy, as most of the material is hard rock and the slope is steep. The water rises from seventy-five to eighty feet above low water, necessitating protection work of considerable magnitude. Hingan is the *fu*, or prefectural city, of the district, and has a population of 50,000. It is of considerable commercial importance. The area cultivated is small, about fifteen per cent being under wheat and rice. Wood oil, varnish, silk, tan bark, potatoes, Indian corn, sweet potatoes, peanuts, walnuts, etc., are also produced. About mile 400 a change occurs in the geological formation and the work will not be as heavy as in the preceding section. The country downstream from this point is granite and hard limestone, upriver it is fine sandstone and shale, containing small veins of lignite. At about mile 410 there is a large deposit of lignite coal, which is used extensively in the locality. The deposit consists of about twelve veins in close proximity, with a total thickness of about eighty feet. Southeast of Hingan there are large deposits of asbestos of good quality and all the country to the south of the projected line contains veins of lignite of varying thickness. To the northwest of Hingan is the large irrigated valley of Hanyin, about 100 square miles in area. All the rest of the country in the vicinity is mountainous and broken, the ranges being about 4,000 feet above the Han River valley. These mountains are cultivated extensively, although they are very rough and broken. The chief crops are potatoes and Indian corn, which constitute the staple foods of the people. Very little rice is raised, except in the small valleys in the mountain ranges. Tea is also an extensive crop around Tzeyang. The hills are barren of forests but the wood oil and varnish trees are planted where the land cannot be cultivated.

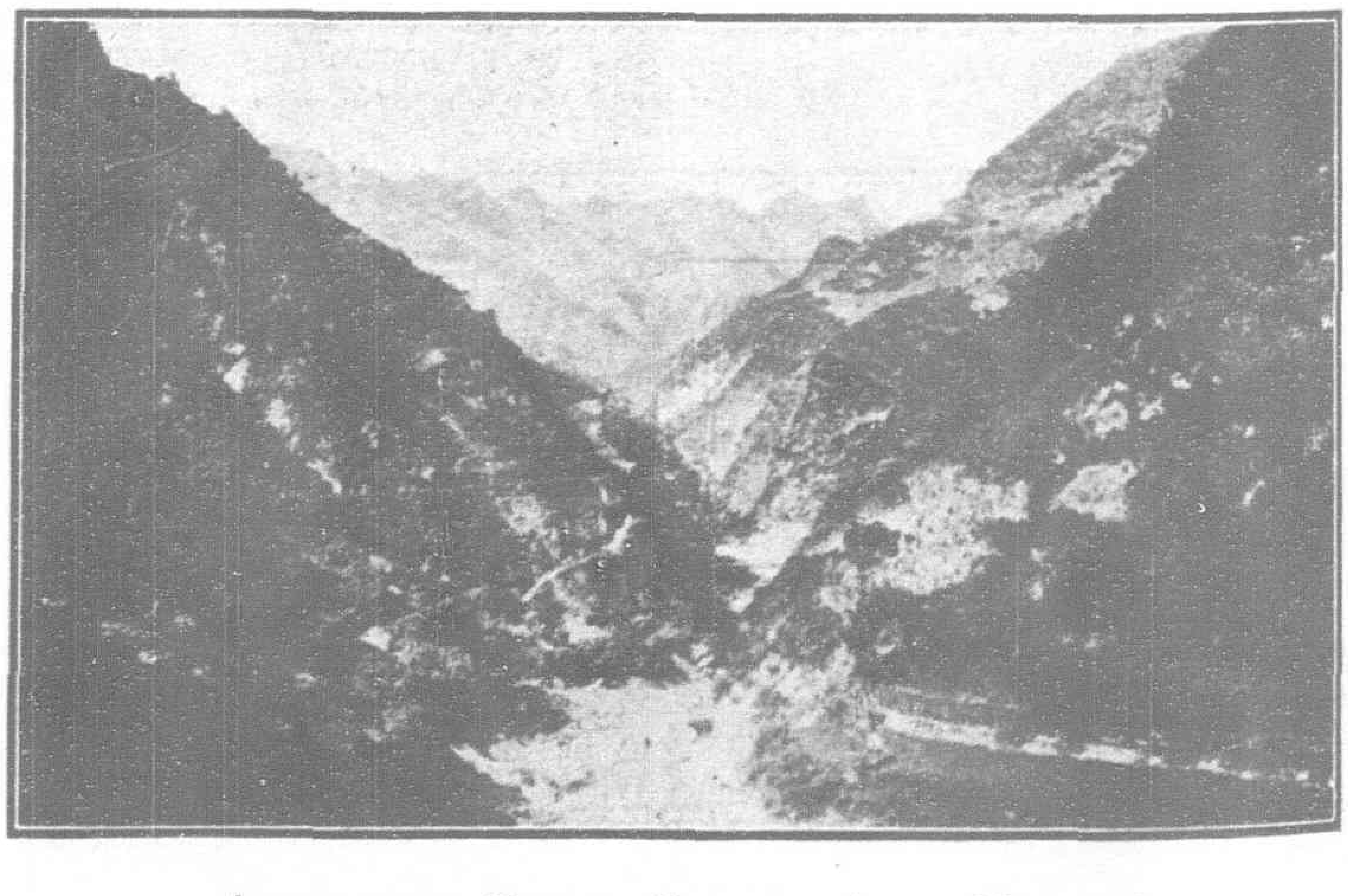
At Tzeyang, mile 434, the line leaves the Han River and follows the Jenho. There is some small junk traffic on the Han for about six months of the year from the Hanchung valley, about 140 miles distant to the west. This valley is an irrigated plain of some 1,000 square miles, and is described as "Paradise" by the Shensi people. The products from this valley and the tributary territory to the west will furnish considerable tonnage to the line at mile 434.

Tzeyang is a city of 35,000 people and is a commercial center for the tea industry of the surrounding country as well as for the local iron foundries and smelters situated in the vicinity. The smelters are small, of about one ton capacity, but the output is at present sufficient to supply the province of Shensi with the necessary plowpoints, cast-iron pots, and other implements and articles for native use.

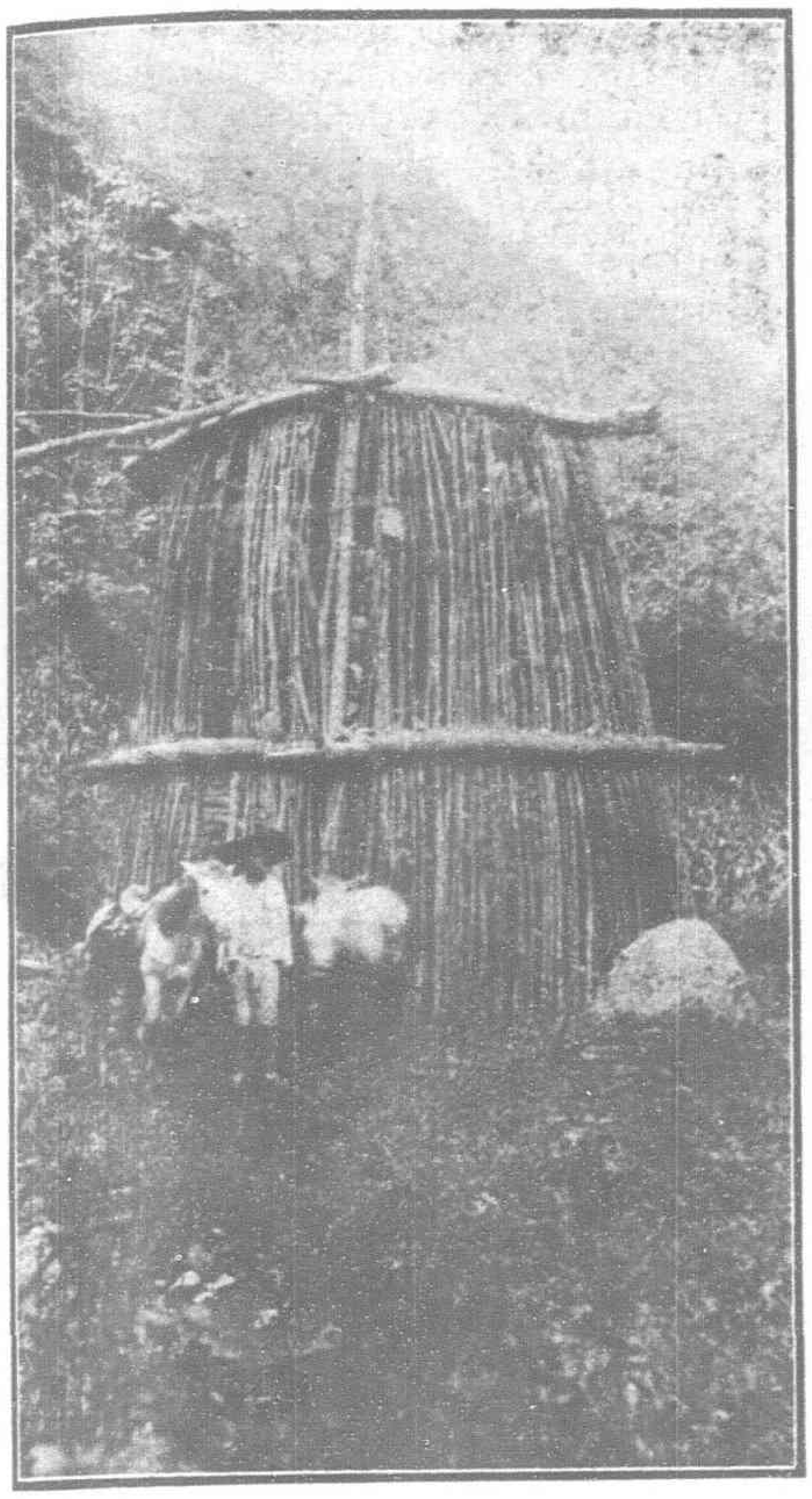
The deposit of iron ore covers a territory of about ten to twenty square miles, but the present development is not sufficient to judge of the extent of the volume of the deposit. Judging from geographical contact between the limestone and the shales, it is possible that the deposit of iron ore may be found to be large. Construction through this section will be heavy rock, canyon work, in order to avoid high retaining walls as protection against maximum high water.

The Jenho is followed for twenty-nine miles, and the line then follows a branch stream called the Malipa creek from

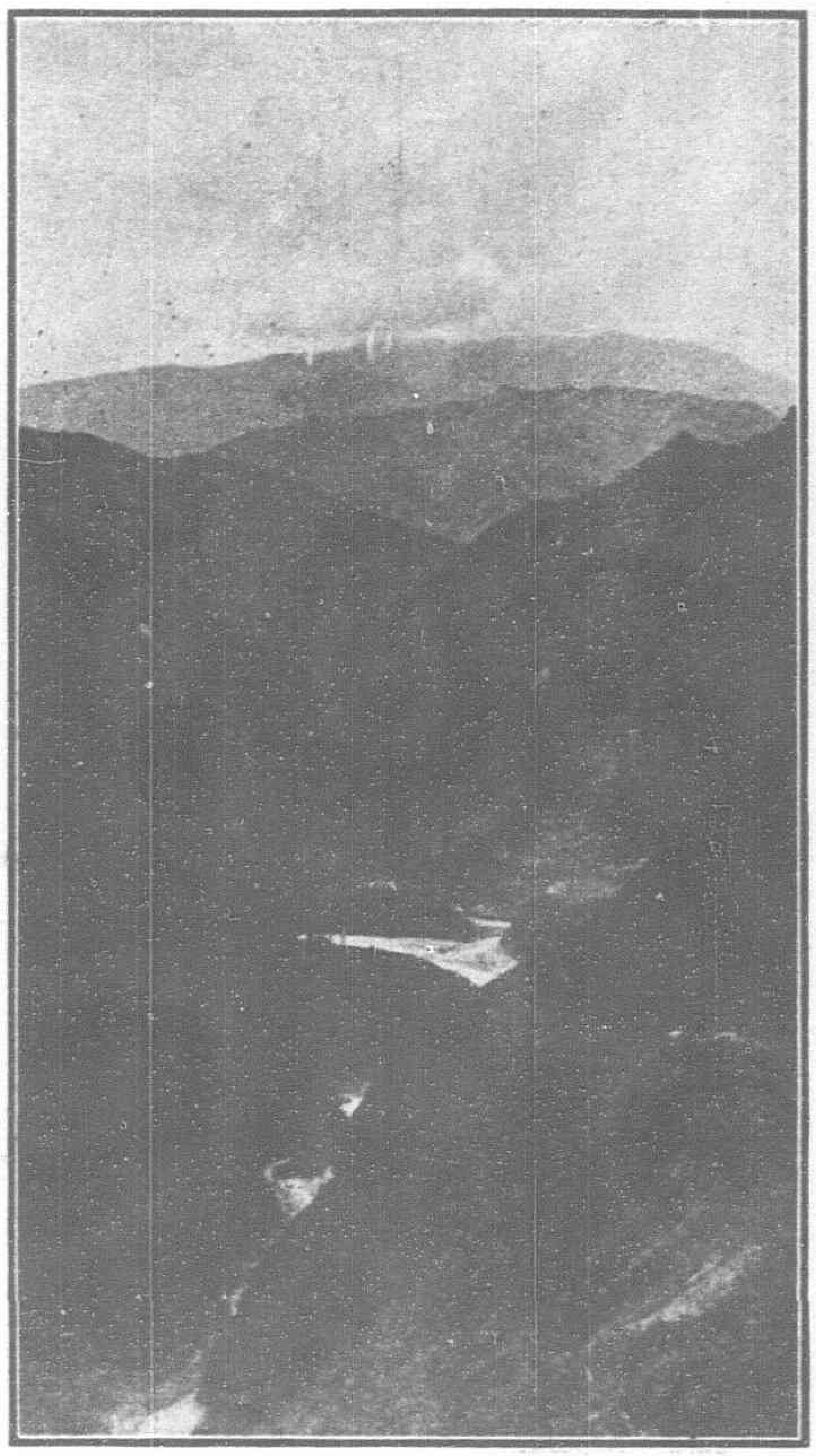
HUNGKOUTANG ON HAN RIVER, MILE 385



APPROACHING YUTUPA SUMMIT, ABOUT MILE 496



NATIVE IRON SMELTER TEN MILES NORTH OF CHWANPING



VILLAGE OF MALIPA, LOOKING SOUTHWEST FROM MALIPA DIVIDE, MILE 470

CHUCHIAPA FIFTEEN MILES UP JENHO FROM CHENGKOU

twenty-two miles to the mouth of a small stream that crosses the divide, about three miles distant. The country along the Jenho is somewhat similar to that along the Han below Tzeyang, with the exception that the sidehills are much more even and direct, with no sharp bends, although the river is very crooked. The bends are such that ten degree curves will fit the contours well in most cases. The last three miles in this valley are just on the Szechwan-Shensi border. The river passes through a bad box canyon, but the benches in the canyon are such that the line can fairly well be laid on them. In order to do this, however, several short tunnels will be necessary, and the work for some distance will be heavy. The Malipa creek for the first three miles runs through a small narrow gorge, very direct in alignment, with sidehills averaging about fifty degree slopes, and running to an elevation of about 2,000 feet above the river. Although the aspect of the gorge is very unfavorable, the grading work will not be excessively heavy.

Continuing in a northwesterly direction to mile 500 the creek is very direct and fairly well open with gentle sidehills on the north side, which are not badly broken by side drainage. This creek lends itself well to a supported grade which will be necessary if the one per cent line is used. The general character of the country on each side of the line is mountainous and very broken, as is generally the case on the boundaries of the provinces. The mountain ranges average about 5,000 feet elevation, or approximately about 3,000 feet above the river. These mountains are cultivated where possible, and places that are too steep for cultivation are used for tea plants, wood oil trees, varnish, and walnuts. Considering the mountainous character of the country it is intensively cultivated though the area under cultivation would not, probably, amount to more than fifteen per cent of the total area. Coal is mined locally in small quantities, but is of the lignite class and is not of much commercial value.

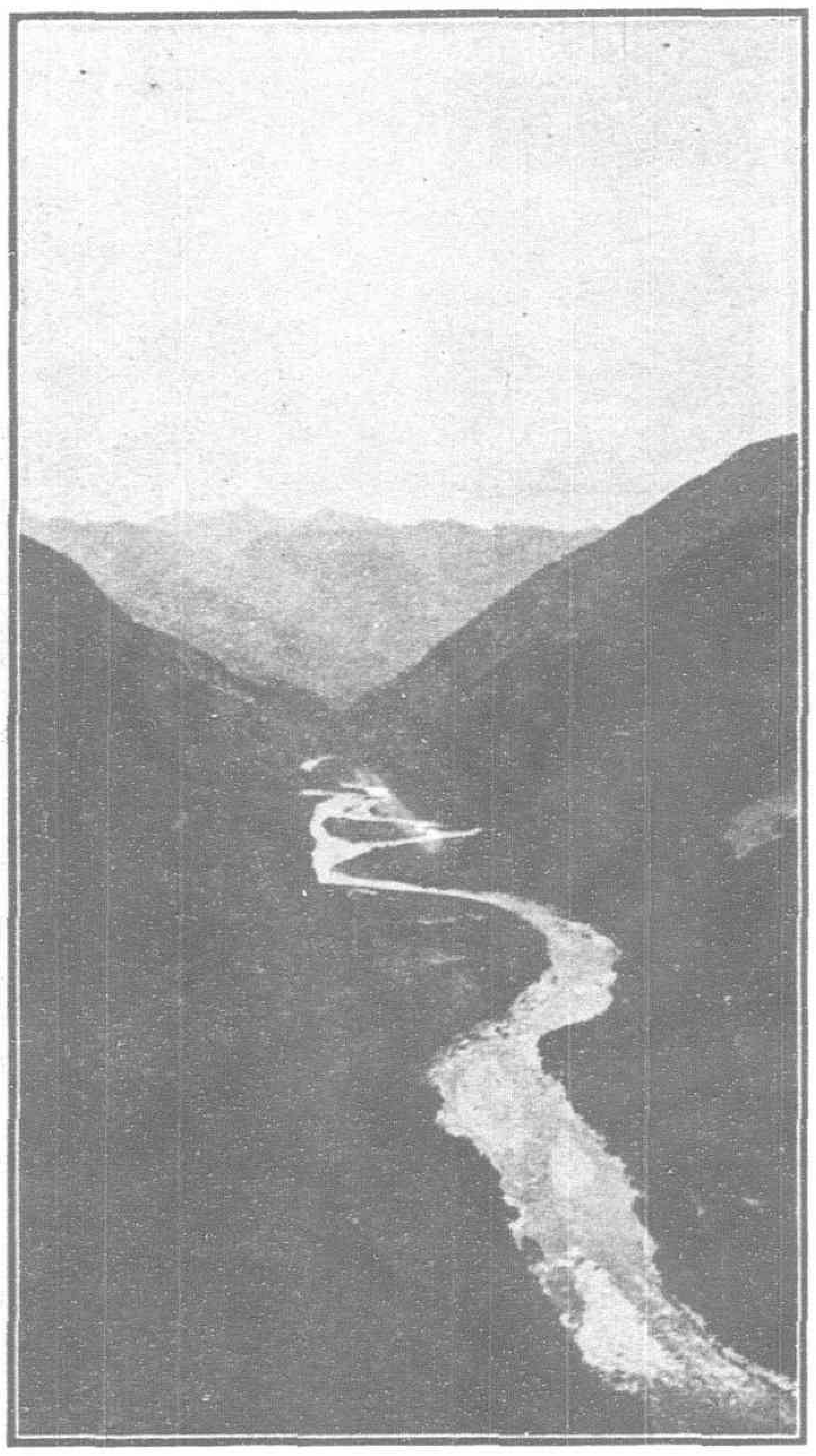
The valley of the Jen River farther up will contribute considerable freight from the city of Chengchow (population 10,000) and vicinity, as the valley is about thirty miles long by one-half mile in width, irrigated and intensively cultivated, producing two crops per annum. There are indications that the mining industry may also develop, as asbestos, iron, and coal are found in this locality.

The last fifteen miles of the section consist of additional distance required for obtaining a maximum one per cent line. The country is such that it lends itself to any development necessary, as the supporting sidehills on the south side are smooth.

From mile 500 to mile 505 is located the main summit tunnel and its approaches. The main divide between the Han and the Yangtze River extends in a general northwesterly direction, and at this point the drainage is parallel to the divide until it breaks through a low sub-range and then flows at right angles to the main divide on both sides. The ridge of the divide is an immense fold of strata, having shale and sandstone on the north and the south faces and hard blue limestone in the center. The shale, which is about 1,000 feet thick, stands almost vertically on both faces of the limestone core, and has been eroded to such an extent that the present slopes of the ridge are about 35 degrees to 40 degrees, leaving a width across the top of about one mile at the point where the line would probably cross. The elevation at the top of the ridge above the valleys on the north and the south is about 2,300 feet, and by establishing the grade line 1,600 feet below the top, a tunnel approximately two and a half to three miles long will be required. This tunnel is the largest single piece of work on the entire line, but no particular construction difficulties are presented, except for at least 1,000 feet at each end which will have to be lined, if not the whole length of the tunnel, as the general characteristics of the country seem to indicate that the limestone core is hard but shattered by the sharp folding of the strata. The grade elevation can be lowered below the 1,600 feet level by lengthening the tunnel and thus shortening any development necessary on either side to reduce the grade. Detail surveys of this divide are necessary before any exact information can be given, but there appears to be no doubt whatsoever, judging from the information furnished by Messrs. Carroll and Collins, who made the reconnaissance, that a one per cent line can be obtained. By lowering the grade of the tunnel, increasing its length by approximately one-half mile, it may be possible to eliminate about five to seven miles of development. On the south side of the ridge there is no difficulty in obtaining a one per cent grade, as the country is rolling and the die hills are smooth with little elevation to overcome in reaching the floor of the valley. There is considerable water power available in the immediate vicinity of the line, which might be used to advantage in construction.

A general description of the country from mile 505 to the Chengtu Plain, mile 884, is necessary in order to give an idea of the general character of the country through which the line would pass between those points, as this entire section of country is all very similar in character.

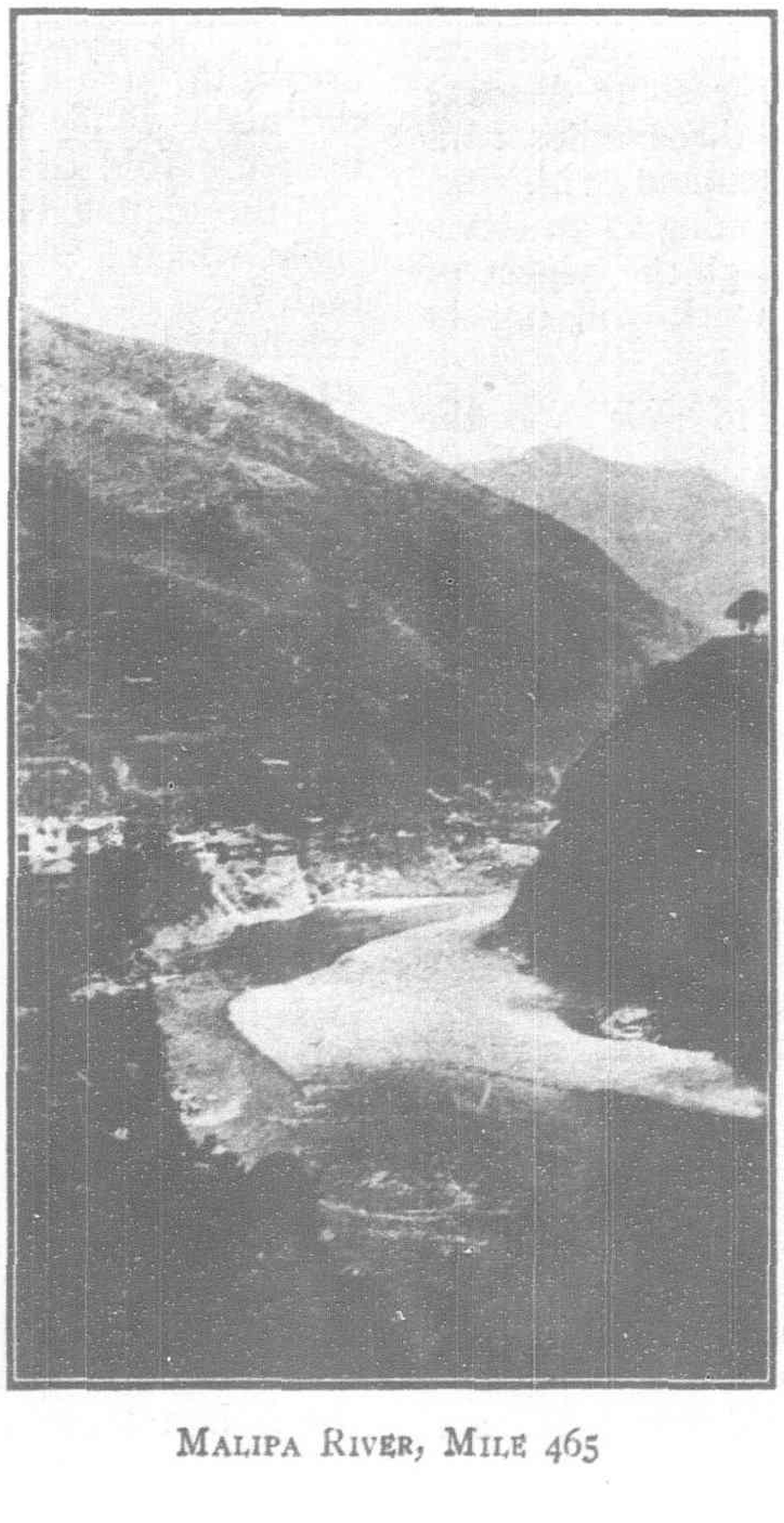
Eastern Szechwan is an immense basin of red shale and sandstone, with a central plateau flanked on all sides by an uplift of limestone, which breaks through the red shale forming the mountain ranges encircling the basin. In most cases the shales are about vertical where the fold takes place, but quickly assume a horizontal stratification throughout the entire basin. There are a few local folds in the central basin where the limestone protrudes. Wherever the folds take place the coal veins are exposed and are worked by the natives on a small scale. The coal is a very good grade bituminous coal of the coking variety, and underlies the red shale and sandstone, and is also found in the upper strata of limestone. Judging from the general character of the country and the condition of the exposed deposits of coal, it appears that the entire central basin in all probability contains coal. The deposit of coal, however, may be at some depth below the present ground surface of the basin. The stratification of the central basin, or plateau, is horizontal, and generally speaking, is not broken or folded, although the table-land is very badly eroded. Four large rivers cut through this basin in a southerly and southwesterly direction, leaving ridges between the rivers which vary in height from 1,200 feet on the north to about 700 feet on the south above the valleys of the various rivers. The cross drainage flowing at about right angles to these main rivers leaves isolated ridges, peaks, and hogbacks, and the sub-drainage into this cross drainage complicates the situation so that the general aspect of the country is that of a badly eroded table-land. The ridges and the isolated hills vary in height above the various local valleys from 1,000 feet in the north to 150 to 200 feet in the central and southern sections of the table-land.



The Jenho, Ten Miles East of Chengkou

All of these ridges, hills, and valleys are intensely cultivated. The valleys are under a fine system of irrigation and the sidehills are terraced throughout the entire section, giving the country the peculiar aspect of terraced gardens. The population is very dense, and for the most part is fully occupied in the cultivation of the irrigated and terraced farms.

In the northern part of the central plateau there are thousands of salt wells, which vary from 200 to 500 feet in depth, and in the southern part of the central plateau these salt wells are over 2,000 feet in depth. Natural gas is sometimes encountered and in such cases is utilized in connection with the evaporation process in reducing the salt from the brine, which is taken out of these wells. There are also *indications of paraffin base petroleum* in two places, one near Chuhsien and one near Shunking. From the above general description of this red sandstone and shale basin, containing coal, salt, some natural gas, and indications of petroleum, it would lead one to believe that this immense basin may contain large deposits of petroleum awaiting future development.



Malipa River, Mile 465

Further details regarding the mineral, agricultural, and other products of this section are given elsewhere in this issue.

This central basin is about 400 miles in length, east and west, and about 200 miles in width, north and south, and includes the best developed parts of the province of Szechwan.

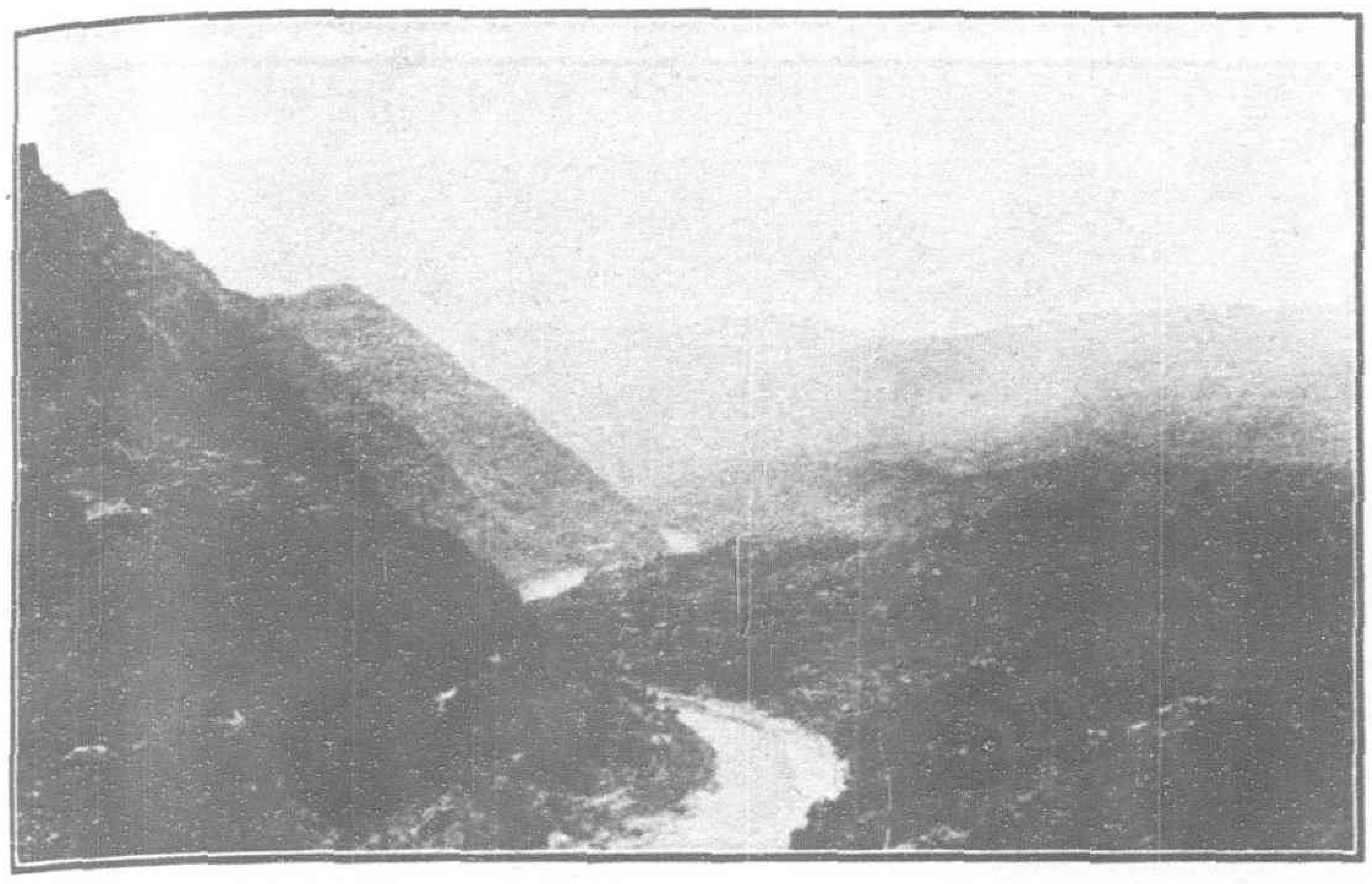
Continuing the description of the line: in descending the west slope of the main divide the line will follow down the drainage of the Tungkiang. The topography, while considerably broken, lends itself readily to one per cent maximum grade.

After leaving the foot of the main divide the line follows down the northeastern branch of the Tungkiang River to the city of Tungkiang. The river had formed a narrow valley, cut deep into the shale and sandstone, leaving high ridges and hills on both sides of the stream. The side slopes of the river average about 35 degrees, thus giving light grading work, but at various points the river turns sharply, necessitating heavy cuts to obtain good alignment. There are numerous large bends in the river and an instrumental survey will show that it may be advisable to cut through these with heavy cuts or short tunnels in order to shorten the line and secure better alignment.

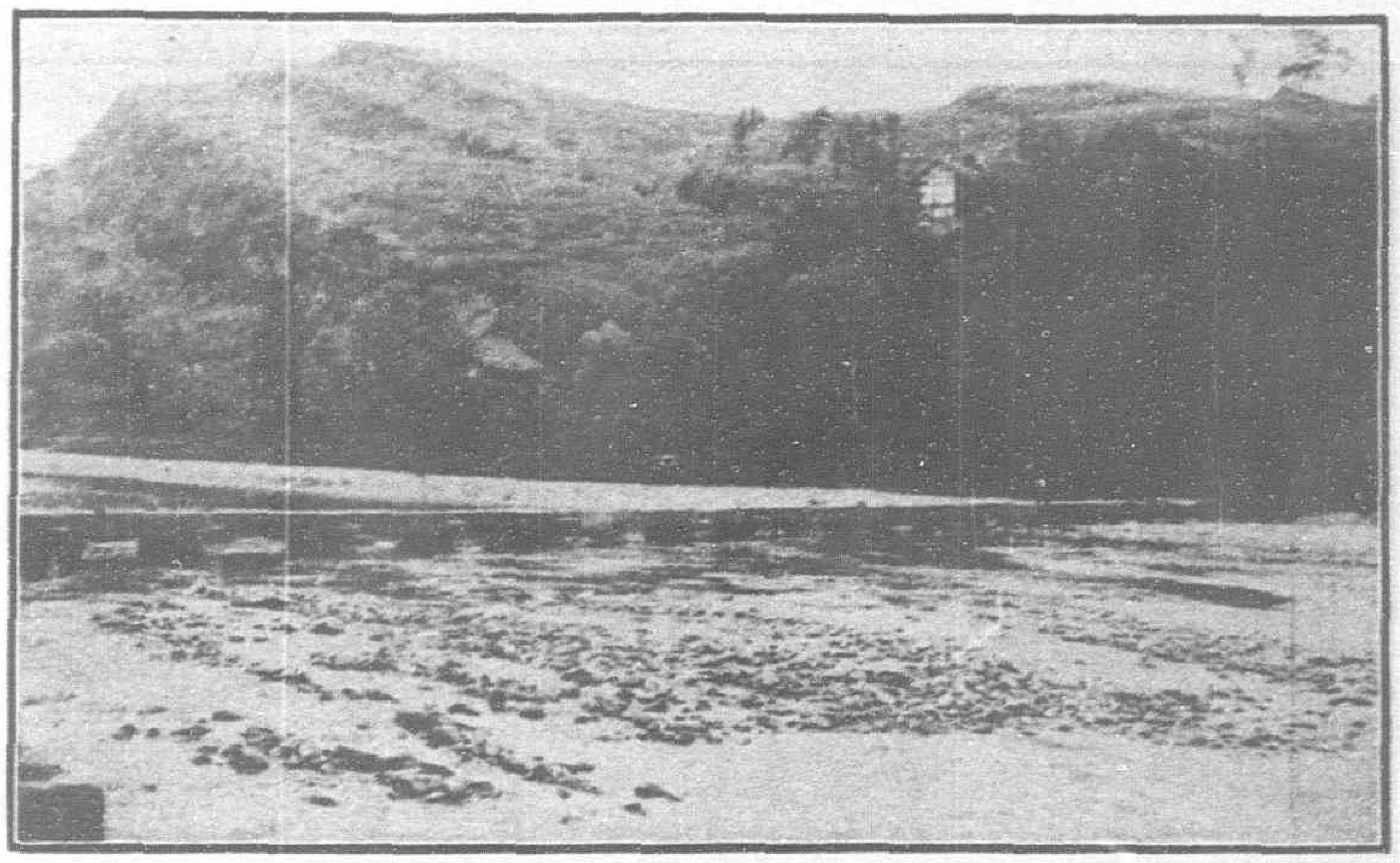
At mile 543 there is about one mile of box canyon where the river breaks through a ridge parallel to the main divide. It will probably be necessary to tunnel through this ridge for about one mile as there is no place to support a railroad grade amidst perpendicular cliffs. Continuing on down the river from Tungkiang, the river gradually becomes more open, the sidehills are more gentle, and the ridges back from the river become lower until the junction of the Taiping River at Sanhueichang, mile 683, is reached. From Sanhueichang to Chuhsien, mile 697, the Hou River is followed. There is no valley, but the side slopes of the bank are very gentle, varying from fifteen degrees to twenty-five degrees, thus giving light work. The materials which will be encountered along all this sidehill are shale and sandstone. The small cuts may be classified as "other material," but all large cuts will be rock, which is of a soft nature but not soft enough to be classified as soft rock. The side drainage entering the main drainage is not excessive, and can be accommodated with arched culverts. It may be found advisable to cross and recross the main river three or four times, which the line follows, in order to cut through a long bend of the river and thus shorten the line. In estimating the distance the actual river mileage was taken, consequently upon final location it may be found that the estimated distance is somewhat greater than the actual survey would indicate.

The land is all cultivated intensively, all sidehills being terraced. The general description of the central table-land will answer here for this particular section except that the ridges and hills are higher.

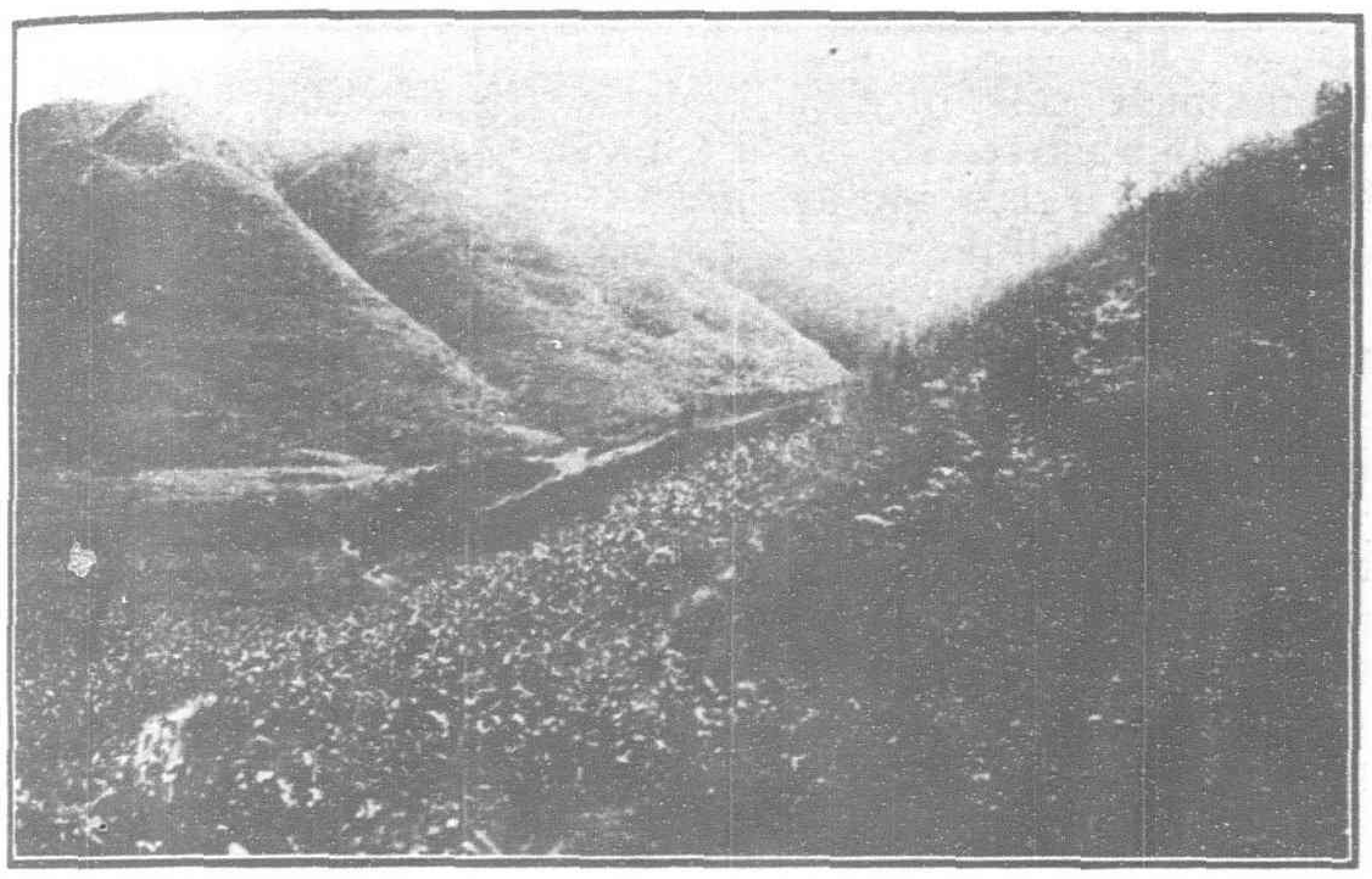
In general the section between mile 696 and 808 of the line runs through the center of the main red shale basin, above



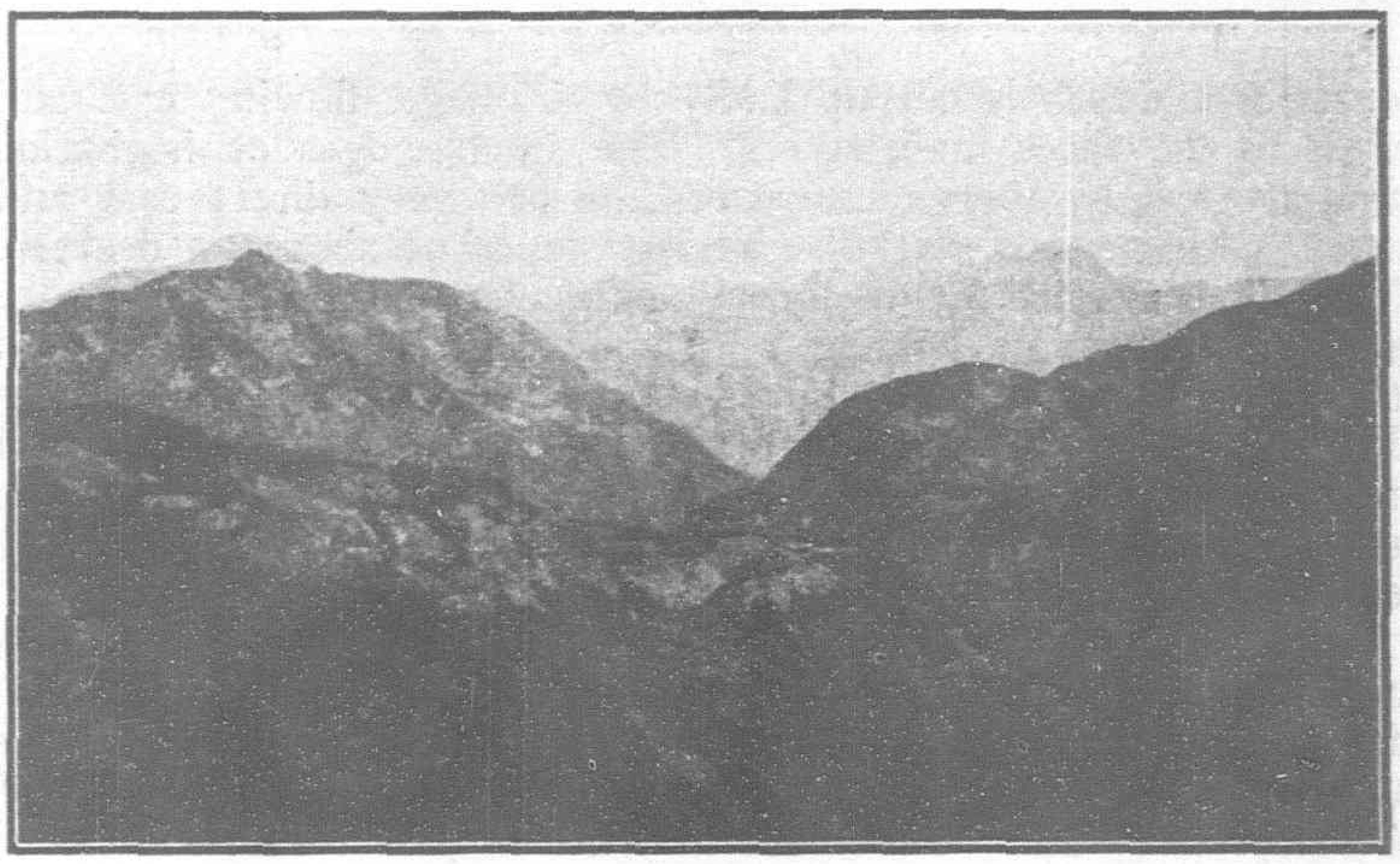
TUNGKIANG RIVER NEAR HANGKOU, MILE 540



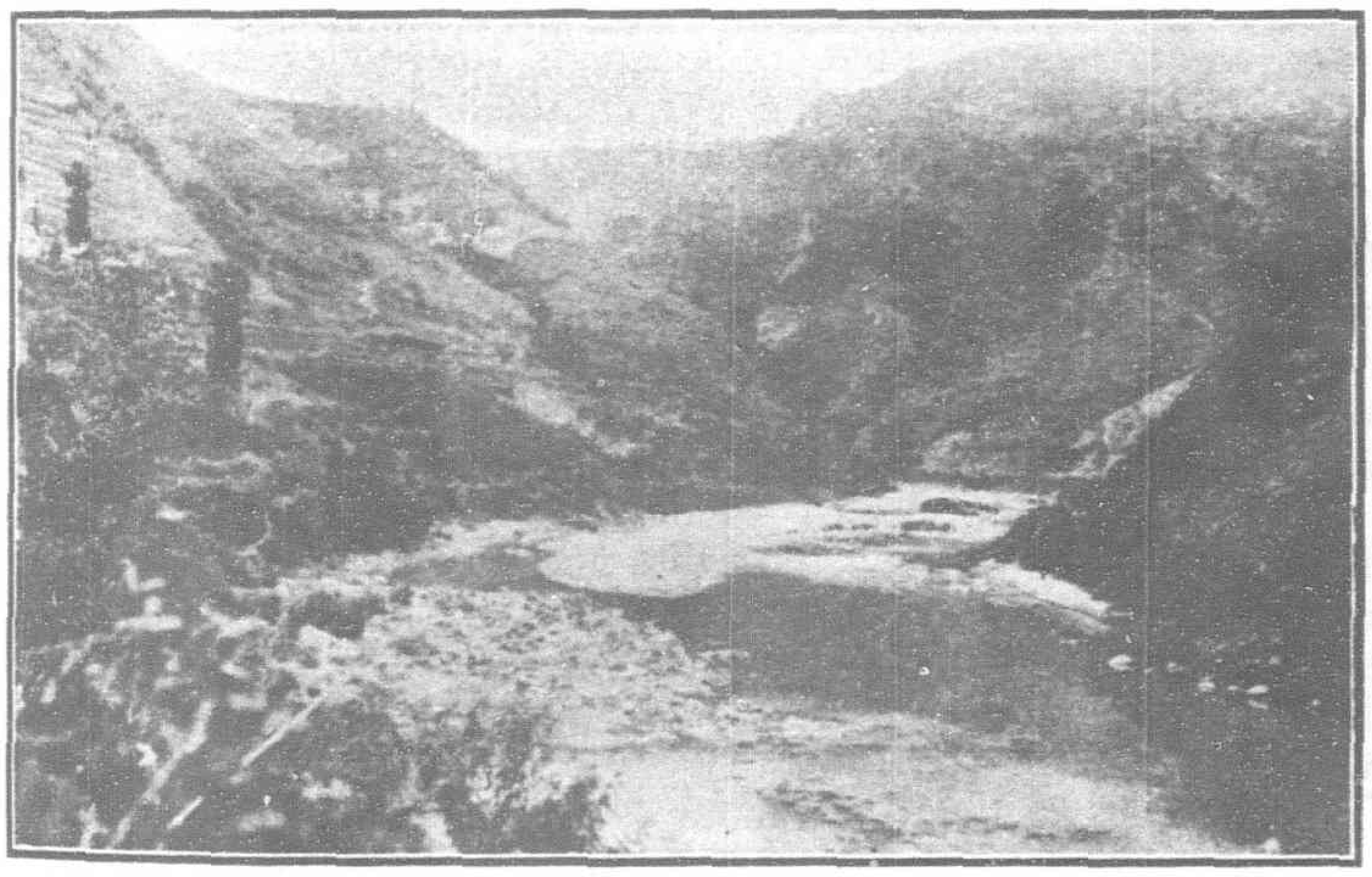
STONE BRIDGE AT CHUYUKUAN, MILE 531



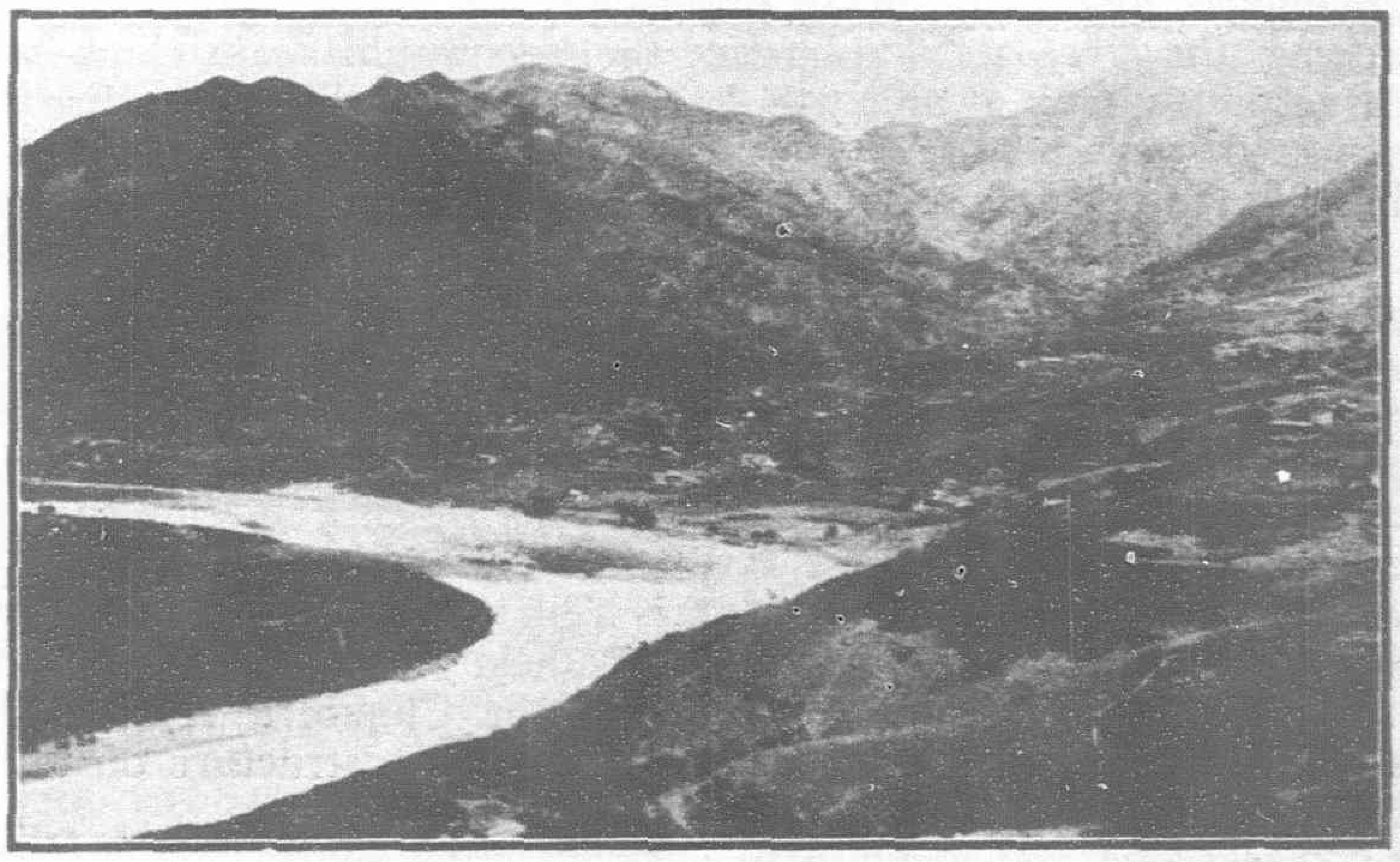
LOOKING SOUTHWEST FROM YUTUPA SUMMIT, MILE 502



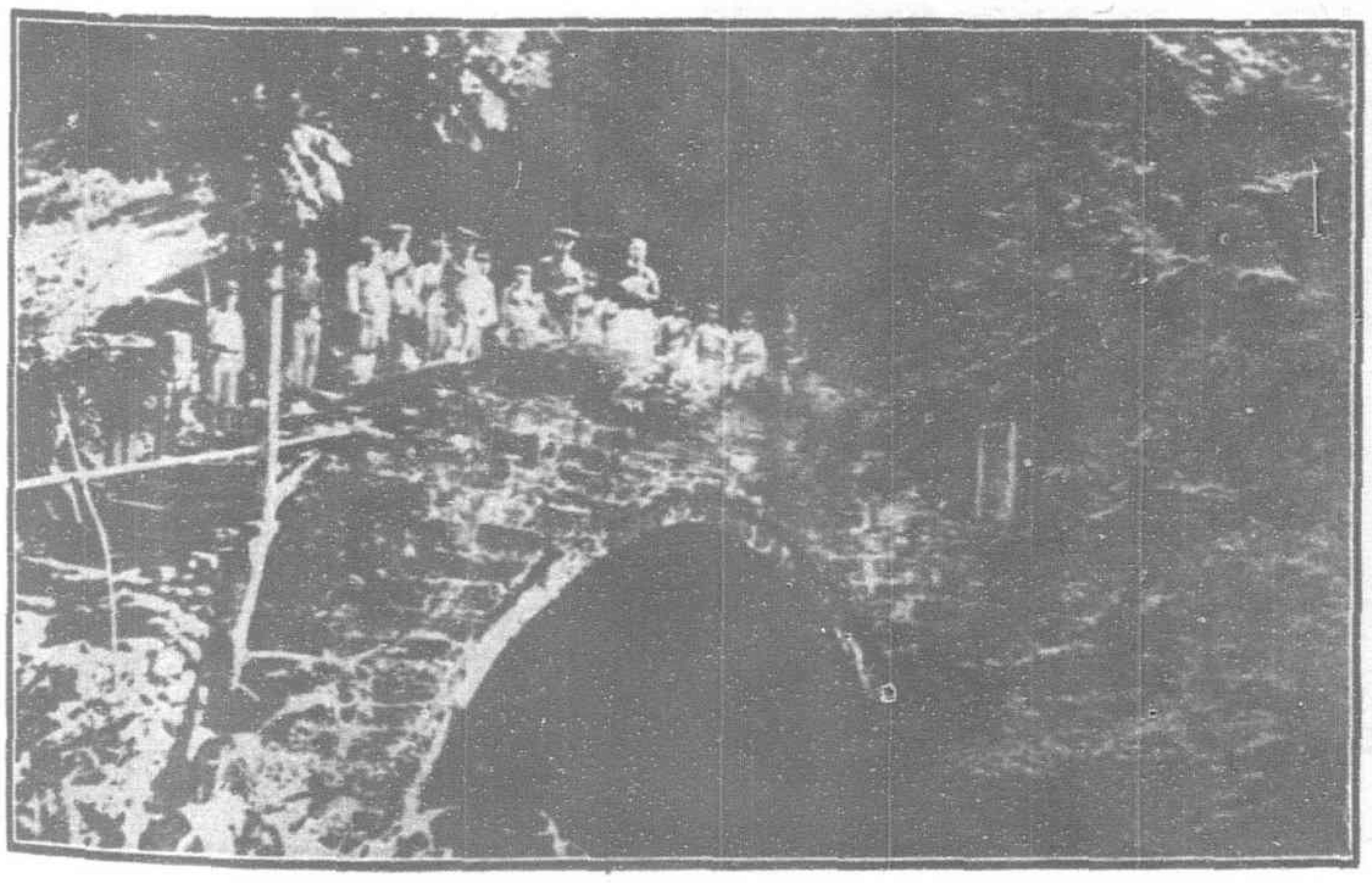
CANYON, NINETEEN MILES NORTHWEST OF CHENGKOU. NOTE CULTIVATION ON MOUNTAIN SIDES



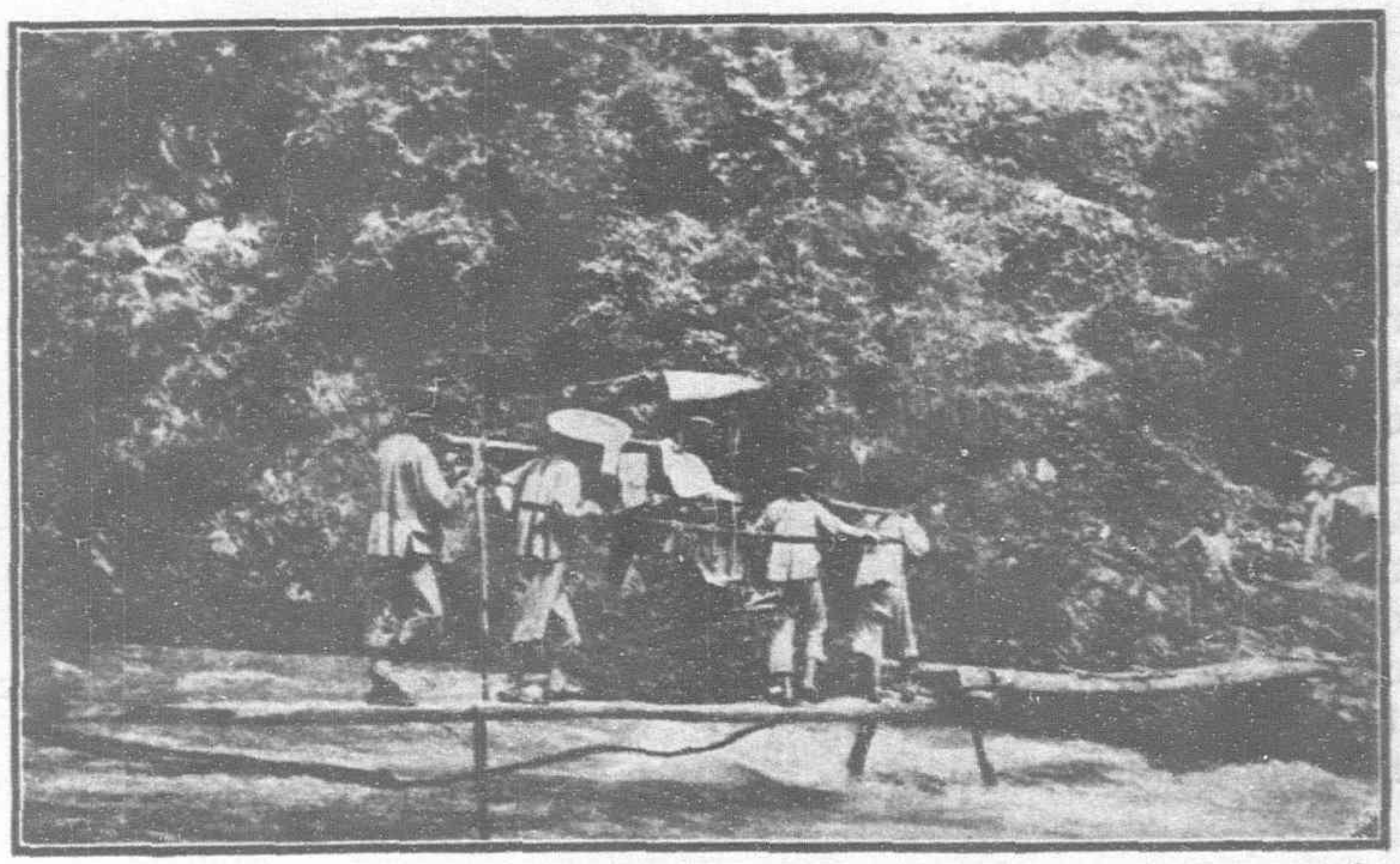
NEAR CHUYUKUAN, MILE 531



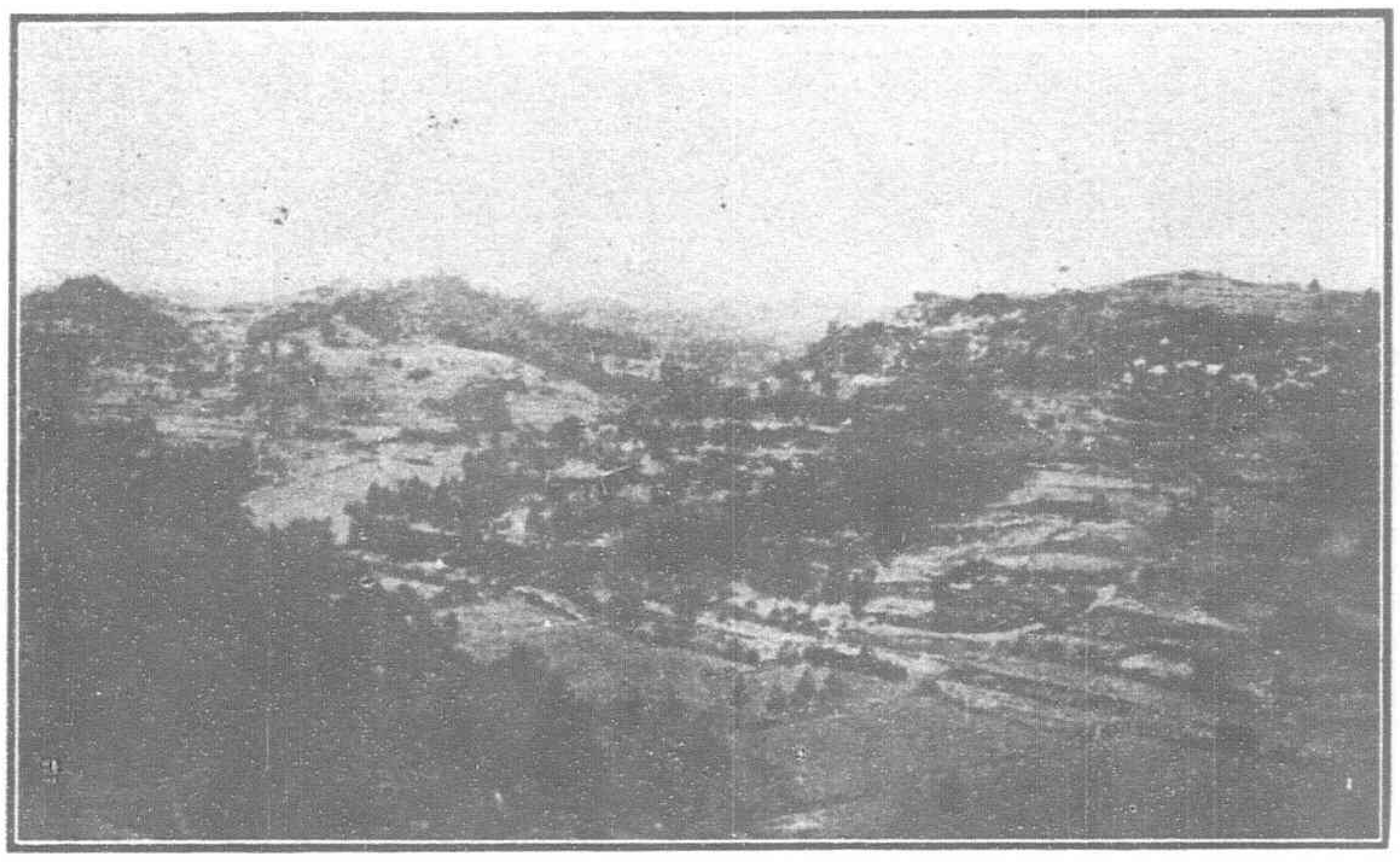
VIEW OF CHUANPING



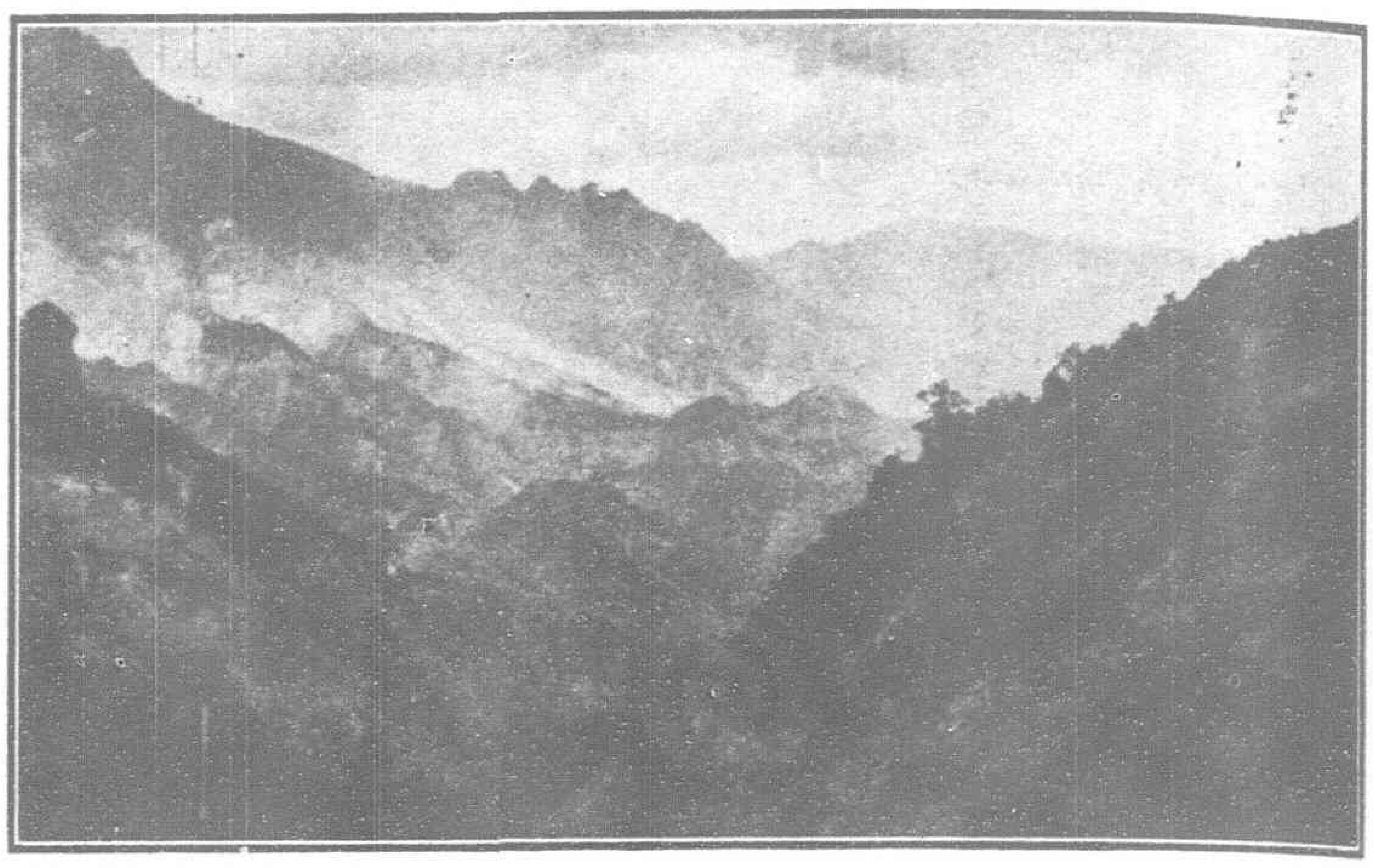
BRIDGE OVER DRAGON MOUTH SPRING, TWENTY MILES NORTHEAST OF CHENGKOU



CROSSING TZEHO, NORTH OF CHENGPING



General Character of Country Forty Miles West of Chuhsien, Mile 739

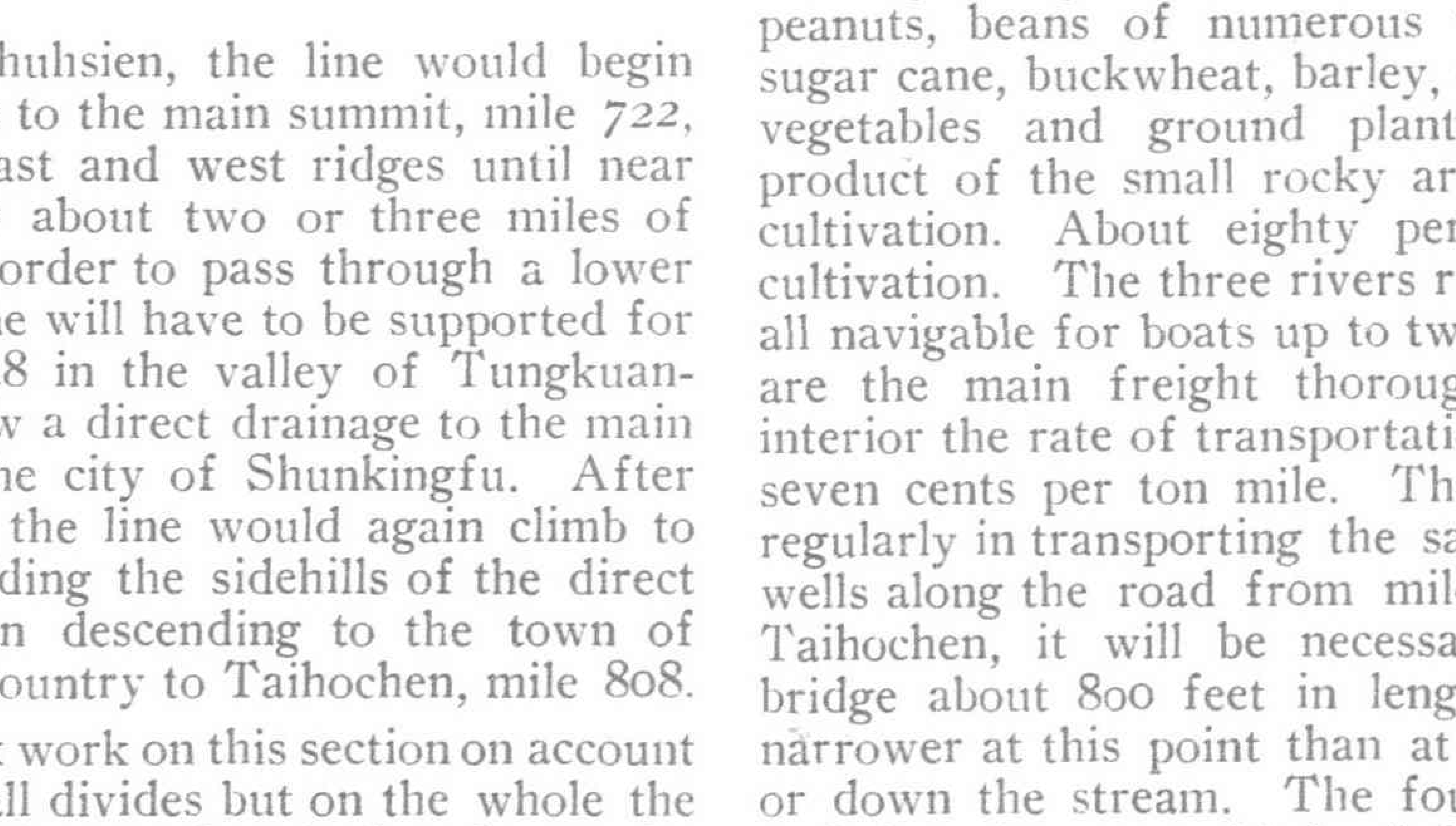


Country East of Nanchi

described, which is cut up badly by drainage, flowing east and west to the three main rivers. The small ridges or hogbacks, that are left by the excessive erosion are very direct east and west, with smooth sidehills, having slopes of about 25 degrees. The Chialing River cuts through the elevated table-land in a southerly direction, leaving a high ridge between this river and the Chu River, and also a lower ridge between it and the Suining River. The line crosses the main drainage at right angles, and follows the general direction of the side drainage, but would keep up on the smooth sidehills of the hogbacks extending directly east and west.

Leaving the Chu River at Chuhsien, the line would begin ascending on an 0.8 per cent grade to the main summit, mile 722, following the side slopes of the east and west ridges until near the main summit, where perhaps about two or three miles of development would be required in order to pass through a lower summit. From this summit the line will have to be supported for a considerable distance to mile 748 in the valley of Tungkuanchang; thence the line would follow a direct drainage to the main Chialingho, just to the north of the city of Shunkingfu. After passing the river at Shunkingfu, the line would again climb to the second summit at mile 778, holding the sidehills of the direct east and west hogback, and then descending to the town of Tengchi; thence following across country to Taihochen, mile 808.

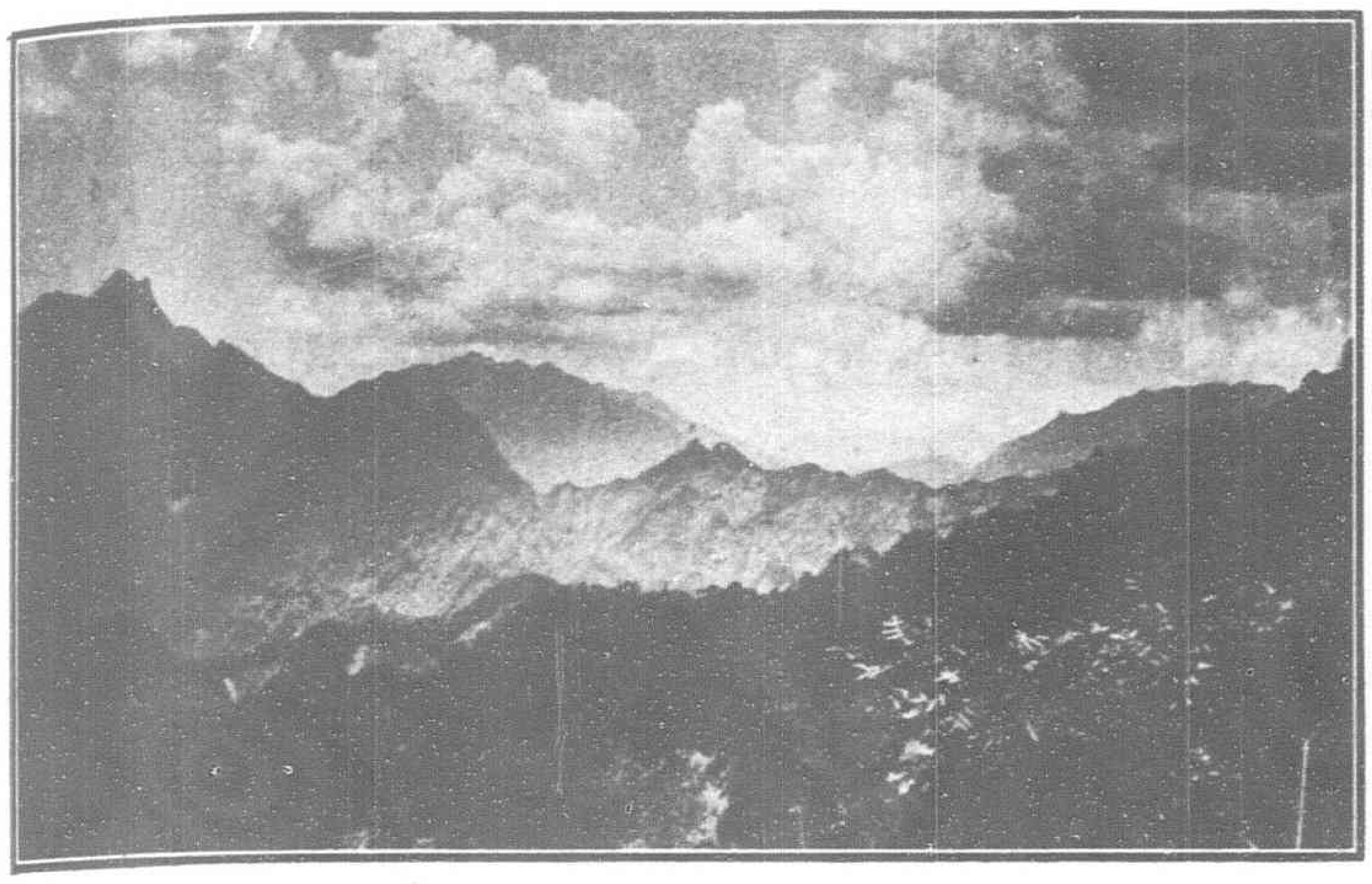
There will be considerable rock work on this section on account of cutting through the various small divides but on the whole the work will not be heavy. A tunnel 3,000 feet in length may be required at the summit, mile 721, in order to maintain the 0.8 per cent grade, but it may be found that this tunnel can be considerably reduced in length or perhaps be entirely eliminated by crossing another summit farther to the south. The country west of the summit at mile 721 is very badly eroded by small deep streams, but the line can still be held on the smooth sidehills of the ridges. The crossing of the Chuho, a few miles above Chuhsien will be the largest single bridge structure on the line. This bridge will be about 3,000 feet long and about fifty feet above the normal low water. This crossing is good as compared with the general character of the banks of the river, there being a rock ridge that comes down sharply from the east to the bank of the river, exposing solid rock near river bed. On the west bank there is a conglomerate rock exposed, so without doubt the foundations for this bridge can be placed on solid rock, although this rock may be very deep below the water in the center of the river. Spans 150 feet in length were figured on in estimating the approximate cost of this bridge. Considerable heavy work will be encountered for about ten miles west of this bridge, as all the material is rock and the line will not have gained a sufficient elevation to hold the smooth sidehills of the ridges farther up.



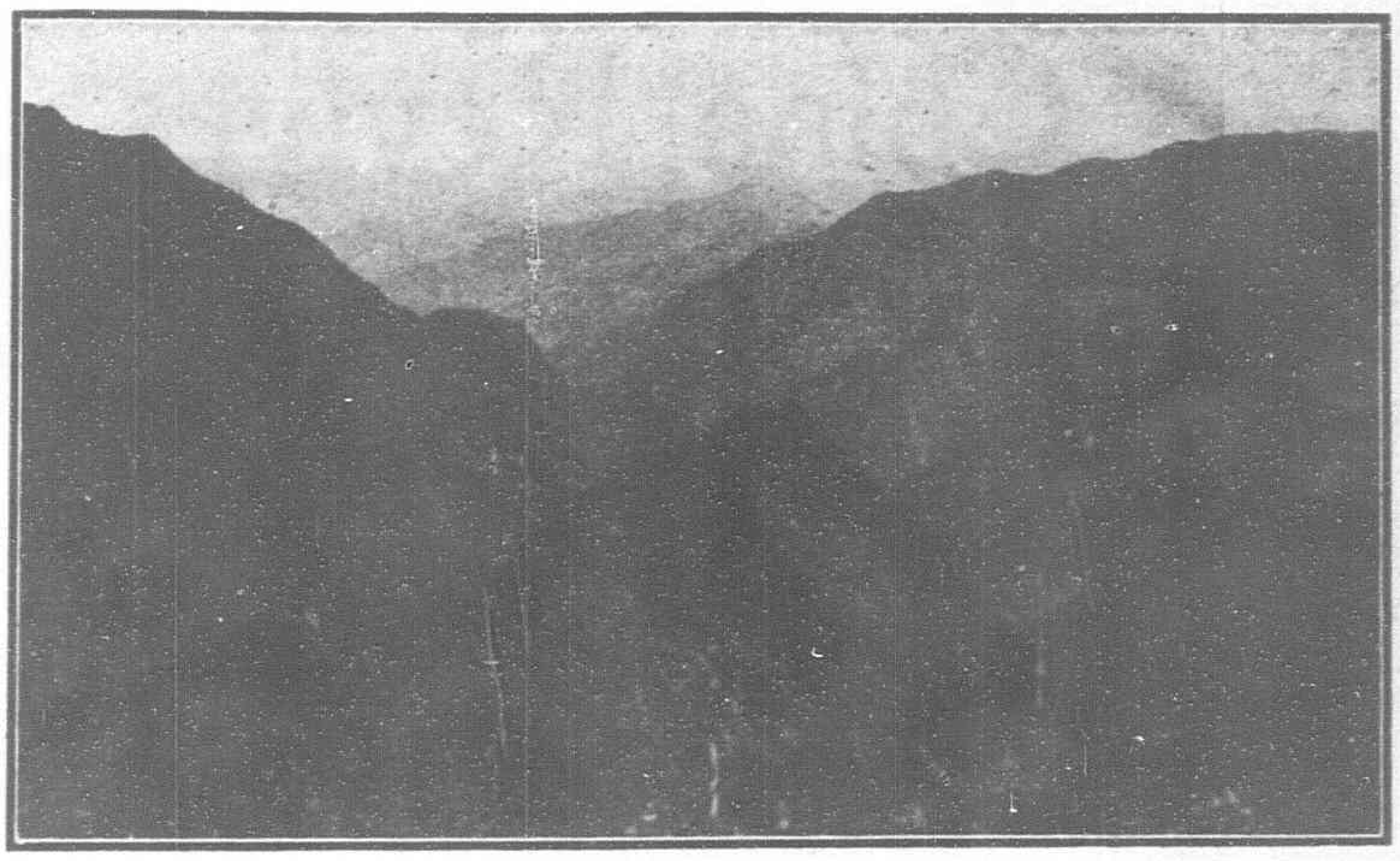
Running the Rapids on the Upper Paishuiho, Mile 630

There will be a tunnel at mile 778 about 1,000 feet in length, but this may be reduced somewhat when the actual survey is made. All this section is intensively cultivated and thickly inhabited. The terraced farms and irrigated valleys generally yield two crops of grain a year besides wheat and rice which are the staple crops. There is a large acreage of corn, sweet potatoes, peanuts, beans of numerous varieties, peas, kafir corn, millet, sugar cane, buckwheat, barley, oats, and numerous kinds of other vegetables and ground plants. Wood oil is also a valuable product of the small rocky areas which are not susceptible of cultivation. About eighty per cent of this section is under cultivation. The three rivers running south through this area are all navigable for boats up to twenty tons capacity. These rivers are the main freight thoroughfares of the country. In the interior the rate of transportation by pack coolie is about twenty-seven cents per ton mile. Thousands of coolies are employed regularly in transporting the salt obtained from the various salt wells along the road from mile 780 to mile 807. At mile 807, Taihochen, it will be necessary to cross the Suining River, a bridge about 800 feet in length being required. The river is narrower at this point than at any part within twenty miles up or down the stream. The foundation in the east bank will be rock, but about two thirds of the other foundations will probably be on piles.

Taihochen is a city of about 5,000 population. There are a few coal mines in this vicinity, but most of the coal used locally comes up the rivers from Hochow, a coal mining center to the south, situated on the southern edge of the red shale basin. Before crossing the river at Taihochen the line follows up the west bank of the Suining River in a northwesterly direction. Tungchuang, a town of about 200,000 inhabitants, is a very important collecting and distributing point for the tribal country to the northwest, and also for Tibet. Shehung, mile 817, is also an important grain center and has a population of about 50,000. Shortly after leaving Taihochen the line will follow up a short valley that enters the river from the northwest, to a small local summit where a 400-foot tunnel will probably be required. Thence the line will descend to the river again. This diversion from the river cuts off about three miles of distance over that which would be necessary if the river route were followed.



Looking Southwest from Divide Toward Chengkou



Looking North down the Taoho from Summit of Shensi-Szechwa Boundary

After this small local diversion is passed, the line will follow the west bank of the river. The grading work will be light, as the sidehills back of the river are very direct in alignment and the slopes are gentle, averaging about twenty degrees. The side drainage is light, although a few branch streams enter the river which will require about three hundred feet of plate girder opening for each. The general character of the country is rocky but the sidehill slopes of the river are mostly talus, although all deep cuts will be in solid rock. The country back from the river is of the broken nature of the red shale basin. It is all intensively cultivated, the valleys producing two crops of grain a year and the high terraced farms one crop. The salt industry is very large, as there are thousands of wells scattered far into the interior. The large junk traffic on the river is heavy especially in the transport of salt.

Continuing west from Tungchuang the line will pass through a light rolling table-land on the north side of the Chungkiang River, which is a large branch of the Suiningho, entering from the west. This country is intensively farmed, producing two crops each year, one of rice and one of wheat. The higher ground produces only one crop per year. Hemp, indigo, corn, sweet potatoes, peanuts, sugar cane, wheat, barley, oats, silk, and tung oil are the chief products; there are also various other kinds of ground plants and vegetables. Hog raising is an extensive industry throughout the central basin generally, but there are few cattle or horses raised. Sheep and goats are raised in a very limited number. The output of hides is considerable as each farmer owns at least one water buffalo or one head of stock is used for working purposes. Thus the total accumulation of hides from used-up animals is very large on account of the density of the population.

At about mile 847 the Chungkiang River will be crossed on a 700-foot plate girder bridge, and a sub-drainage will be followed up to a point near the town of Panpunshan, where it will probably be necessary to begin supporting the 0.8 per cent grade in order to gain the table-land above; and from this table-land the support will continue up to the main summit at mile 878, where it will be necessary to use a tunnel about 8,000 feet in length in order to maintain the grade descending to Chaochiatu. From the summit at mile 777 to mile 885, Chaochiatu, there is a drop of 1,000 feet from the top of the divide to the river valley in a distance of six miles. This particular part of the line is the most difficult on which to maintain a low grade line, as at no other part is there such limited distance in which to overcome the necessary elevation.

In order to maintain the low grade line at this point it will be necessary to use the 3,000-foot tunnel above-mentioned, with a grade line approximately 400 feet below the top of the divide. The country is such that it lends itself to natural development, and about 1½ to 2 miles of extra distance can be obtained by following the sidehills of the valley and then following on down the supporting country to the river at a point just below Chaochiafu. The grade line at the crossing will be approximately 150 feet above the river, and a 3,000-foot viaduct, 150 feet in height, will have to be used to maintain the low grade. It may be found more economical to use a short pusher grade over this divide, but the distance is so short and this section is located at such a point that it would probably be advisable to hold the low grade. This, however, is a matter which the surveys will determine. This summit can probably be eliminated altogether by going farther south, though this would increase the distance considerably. In general this section of the country is smoother and of a more rolling character than the main central basin. The grading work will be light, but, on account of the supported grade, there will be considerable rock work, but not of a heavy character. The country throughout this section is intensively cultivated and the crops are the same as before described, although the cultivation of rice is more extensive, due to the more even nature of the land.

The line from mile 884 to Chengtu passes through the eastern part of the Chengtu plain following a low, smooth, direct hogback with an elevation of about 700 feet above the general plain. This hogback is simply a slight elevation in the plain which divides the waters of the Min River from the waters of the Lu River to branches of the main Yangtze River. On account of the line following this low watershed the bridging will be very light, as will also be the grading work. The material encountered will be earth. No trouble will be experienced with water.

The Chengtu plain is about forty miles wide by eighty miles long and contains a total of approximately 4,500,00 people, or an average population of about 1,440 persons per square mile, indicating a very dense population. The plain is intensively cultivated and is well irrigated by an excellent irrigation system which is said to be the oldest irrigation system in the world that is still in use. The ditches are well laid out and water is available for the entire area. On account of the supply of water coming from the mountains, which are capped with perpetual snow, there is no scarcity of water at any time of the year or during any year. As a result of this condition the Chengtu plain is considered the most productive and surest agricultural area in all China. Two crops are raised each year, chiefly rice and wheat. There is a small acreage planted with cotton but it is a very poor crop, apparently due to the soil being unsuited to this crop. The tobacco and sugar cane industry is large. Almost every kind of grain is grown, while vegetables and oil and many varieties of beans are produced. This plain is said to produce everything agricultural that is grown in any part of the United States, and many kinds of beans, peas, ground plants, and vegetables besides, which are not as yet known to the American farmer. Too much cannot be said about the wonderful productivity of the soil of the Chengtu plain and the great variety of its products. About twenty to thirty miles west of Chengtu lie the mountain ranges of Eastern Tibet which separate China Proper from Tibet, or Si Tsang, the "Western Treasury," as it is called. These mountains are perpetually covered with snow and are very broken, rising to an average elevation of about 12,000 feet. There is one peak which can be seen from the city of Chengtu which is said to have an elevation of 28,000 feet. We are informed by reliable men living in this vicinity that these mountains contain large deposits of gold, platinum, copper, and coal.

China Revives the Opium Trade

Official Purchase of Stock and Sale to Syndicate Nullify Ten Years' Work of Suppression

In keeping with the terms of an Anglo-Chinese agreement signed in 1907, the legitimate foreign opium trade in China and the legitimate Chinese cultivation of opium came to an end March 31, 1917. The closing of China to the import of Indian opium, which once constituted a very large and lucrative trade, was made dependent upon the gradual suppression by the Chinese authorities of the growth and sale of native opium, formerly grown in very large quantities in every part of the Chinese empire, with the possible exception of those districts of Mongolia, Tibet, and Turkestan which were under the direct control of native princes and chieftains. When the political upheavals of the years intervening between the signing of the treaty and its consummation are taken into consideration, the thorough eradication of opium growing and selling by the Chinese was truly a remarkable achievement and was an eloquent testimonial to the sincere and passionate desire of a very large part of the Chinese people to do away with the use of a drug which was undermining, beyond all cavil and quibbling, the moral fiber of the whole Chinese people and was, in some districts where opium was cheap and was therefore used by all classes, lowering the physical and mental stamina of the masses. So many organizations, both in China and abroad, have been working against opium for a generation and more, and have so thoroughly advertised the evils which result from the use of opium and the iniquity of the trade formerly carried on in China by the group of merchants known in Shanghai and Hongkong as the Opium Combine, that world-wide satisfaction was expressed when the trade came to an end last year and China's reputation was greatly enhanced in all countries.

It will be appreciated, therefore, that an attempt on the part of the Chinese officials in Peking who have in recent years negotiated so many deals of one sort or another to China's discredit, to revive the opium trade in their own private interests, has aroused much indignation among foreign residents in China and among Chinese, and that it is likely to be strenuously opposed by the entire Chinese people when the facts, which have recently been made public in Shanghai, percolate through to the Chinese proletariat.

When the opium trade was officially closed last year an effort was made by a group of Chinese officials to persuade the Chinese Government to purchase from the Opium Combine the residue of opium stocks held in bond by the Chinese Maritime Customs. It was naïvely suggested that this opium could be used to a beneficent purpose if it were manufactured into pills and administered to opium smokers in the opium refuges which abound in the interior of China. A little investigation soon revealed the fact, however, that the tentative agreements entered into between the Combine and the Kiangsu provincial officials were designed to net large profits to an official clique, so the whole proposition was held up to ridicule and execration in the native press and in Parliament, and the Government was instructed to cancel the bargain which Vice President Feng Kuo-chang's representative had already signed. The documents in question were not canceled but were pigeon-holed. A detailed account of the negotiations up to this point, including the texts of various documents, was published in the issue of the FAR EASTERN REVIEW for June, 1917.

It seems now that up to March 31 last year the Opium Combine succeeded in disposing of all but 1,576 chests of the Indian bonded opium. This balance of stock has been lying in bond ever since and has been a source of constant temptation to the group of officials who initiated the attempt to purchase the stock for the Government last year. Much of this opium has been held in stock for a number of years, and in addition to the original cost the Combine has been seeking to get back its interest on the money invested, the heavy insurance paid, the numerous fees involved, the customs fees which will be paid when the opium is formally imported, and a profit, so the price is high, but however high the price the profits to be made by a licensed retailer of the drug any community in China would be so large that the acquisition of even a small share of the stock would insure a man a very comfortable fortune. The profits involved seem to have tempted the official element in Peking, which has been borrowing so freely from abroad and pledging national rights and properties which it has no hope of redeeming, to ignore the inevitable shame and disgrace of reinflicting the opium curse on the Chinese people.

According to the *North-China Daily News*, which has printed the fullest accounts of the deal, an official, from the Ministry of Finance, representing the Government, signed an agreement with the Opium Combine in Shanghai, June 11 in which the Government pledged itself to relieve the Combine of the 1,576 chests of Indian opium, paying Tls. 6,200 per chest, the total to be discharged by a deposit with the Combine of Chinese Government bonds, bearing six per cent interest and being redeemable in ten years. A few days later it was reported that the Chinese Government had entered into an agreement with a new Chinese opium syndicate, composed of prominent Peking officials and of Cantonese opium merchants, by virtue of which the 1,576 chests of opium were turned over to the Syndicate at Tls. 8,000 a chest, together with a license to dispose of the drug in the two provinces of Kiangsu and Kiangsi. This agreement is said to have been signed in Peking, June 14, and at the same time it was announced that Nanking would be made the Syndicate's business headquarters. The Shanghai papers also reported that the new Opium Syndicate had, when the agreement was signed in Peking, paid the Chinese Government $5,000,000 bargain money, which is something more than the profit which the Government stands to make out of the deal. In addition to this direct and acknowledged profit, it is known that the agents who dealt with the Opium Combine in Shanghai asked for a rebate from that concern in cash and it was reported that as much as $1,100 per chest was demanded. To this demand the Chinese opium dealers in the Combine refused to accede and it is not known what compromise was struck before the deal was closed.

The negotiations leading up to the signing of the first contract were naturally secret, although it has been apparent all through the year that the same circle of officials which promoted the agreement signed with the Combine in January, 1917, was in close touch with the Shanghai opium merchants. Considerable laxity in the suppression of opium smuggling, dealing, smoking, and growing in remote and disturbed corners of the country was remarked by missionaries and others. It was reported from the Mongol border that soldiers were receiving part pay in opium, and in Kueichow, Yunnan, and Kwangsi the transport and sale of opium was carried on boldly and with impunity. Something of a scandal grew out of the report from Shensi that the Military Governor of that province had given his subordinates to understand that military expenditures were too heavy for the province and that it would be necessary to instruct the people to grow opium again if taxes were to equal expenses. This report brought forth a great deal of adverse comment and it was discovered that the Governor's pronunciamento was not so much a warning of what was to come as an apology for conditions already existing. In the northern part of the province of Shensi, in districts easily controlled, the poppy had been planted in abundance and a very fair opium crop was promised. All of this laxity was long ago accepted as an omen of a retrogressive step of some sort on the part of the Government, but it was not anticipated that the resurrection of the opium trade would be so frank and that so little attempt would be made to disguise the character of the opium deal.

There seems to be little doubt that the personnel of the new Opium Syndicate is almost identical with the personnel of the present Government in Peking. Both divisions of the Peiyang military party seem to be well represented, the Chiaotung faction supplies several leading lights, and even a few English-speaking Chinese who have, at one time or another associated themselves with what is known as the Young China Party, appear to have taken an active part in the consummation of the scheme. The first reports upon the personnel of the Syndicate were meager, but so much odium attaches to the whole transaction that it was realized at once that nearly every one in the Government must have had a share in the planning of the deal or there would have been strong opposition on either selfish or unselfish grounds.

Chinese reports of the transaction certainly implicate nearly every one who is known to have had a part in shaping the previous agreements and also some new figures. It will be remembered that in the latter part of 1916 General Feng Kuo-chang, then Vice President and Tuchun of Kiangsu, resident at Nanking, was approached by agents of the Combine who sued for an extension of time, arguing that the sale of native opium and of smuggled opium, and the activities of zealous officials, had prevented them from disposing of their stock and that they would have a large residue March 31, 1917, when the trade was scheduled to end. They claimed that the Government was under obligations to help them out with their surplus stock and that they were supported by the British Legation in their suit. Whether or not General Feng was deceived by these arguments and warnings, he promised that he would have the Chinese Government extend the allotted time from March 31 to December 31, 1917. Upon this promise the Combine relied, but when the proposal came up in the Cabinet in Peking it was strongly opposed by Premier Tuan. This disaster to the cause, which, according to report in Nanking, had already been subsidized, set the Nanking officials and the Combine to thinking up new schemes. The one hit upon was that of going into the medicine business. It was suggested to the Government that since the Opium Combine would have about 2,000 chests of opium left on March 31, since opium was a valuable medicine as well as a pernicious poison, since the Combine had the support of the British Legation—which was not true, and since international complications would follow if the opium were not disposed of in some way—which was also a gross untruth, it was essential that the Government buy the opium and manufacture it into anti-opium pills to be sold to the people through licensed dispensers. This whole proposition and program was of course a joke from the beginning, but as the amount suggested as the purchase price was Tls. 8,200 it was apparent at once that those negotiating the deal were to reap a fine commission and many officials hastened to support it. Parliament, however, opposed it, and after it had been signed by General Feng Kuo-chang's representatives, January 28, 1917, it was refused recognition in Parliament and the Government was instructed to cancel it. From that date forward the conspiracy to get possession of the opium was shrouded in much secrecy and the public got no more than an occasional glimpse of what was going on under the surface. When Premier Tuan retired from office last autumn and it devolved upon President Feng Kuo-chang to shape a Cabinet, his appointee to the Premiership, General Wang Shih-chen, broached the opium subject, and the question of ratifying the agreement came up for discussion in the Cabinet, and subsequently in the Chinese press. The Wang Shih-chen Cabinet was too short-lived, however, to put the deal through, and nothing more was said of it in the press until telegraphic messages from Peking to the provinces, dispatched a few days before the signing of the recent agreements, informed the people of China, who had spent ten years in eradicating opium, that the curse was once more inflicted upon them. According to reports in the Shanghai papers since the initial publication of the terms of the agreement, it has been known for some time to the Chinese that ex-Minister of Finance Wang K'o-min, who represents President Feng in his financial ventures, had visited Shanghai, on at least one occasion, to confer with the representatives of the Opium Combine. A few days after the signing of the Combine-Government agreement in Shanghai and subsequent to its signature by Minister of Finance Tsao Ju-lin it transpired moreover that the Government representative who had affixed his signature to the document was Chou Chia-nieh, a high official in the Ministry of Finance, formerly appointed by Wang K'o-min because of his intimate relations with Japanese financiers and officials and because of his friendship with Minister of Communications Tsao Ju-lin and ex-Minister to Japan Lu Tsung-yu. Rumor has it in Peking that Lu Tsung-yu, who is now head of the new Sino-Japanese Exchange Bank in Peking, was left in charge of the financing of the Syndicate and that he has found the Tls. 5,000,000 bargain money which was supposed to have been paid over to the Government when the Syndicate's agreement and license to sell opium in Kiangsu and Kiangsi was signed.

It seems scarcely necessary to comment upon the character of this purchase. The evil effects of the use of opium as a drug are fairly well known throughout all countries and have been particularly obvious to all residents in China, Indo-China, the Straits Settlements, the Philippines, the Dutch East Indies and other parts of the Orient in which Chinese and other Orientals have acquired the opium habit in one form or another. A generation ago, when the Indian opium traders still exercised some influence and enjoyed some prestige, a great deal of sophistry was aired abroad and elaborate medical reports were drawn up to prove that opium had no injurious effects upon the physical, mental, or moral well-being of the Oriental. The zealous even went so far as to assert that the Chinese positively thrived on opium and that it was almost, if not quite, essential to the preservation of their physical and mental equipoise. Such criminal rubbish as this was always combated by missionaries in the Orient, by honest medical men resident in China, and by all foreigners who had come into intimate enough touch with any one opium case to trace its history and mark the effect which the drug had upon the individual. The International Opium Commission, which met in 1909 at the instance of the American Government, brought forward evidence and testimony which effectually silenced the quibblers for all time, and since then the iniquity of the opium traffic has been universally conceded. Many of the strongest opponents of the opium trade were Britishers who insisted that the import of Indian opium into China which amounted to about 51,000 chests per annum eleven years ago was a discredit to the British Empire and that it had seriously damaged British prestige, not only in China where Great Britain sought to give the impression that her foreign policy was preëminently benevolent and fair, but in many other countries where a sentimental interest in the welfare of the Chinese was seized upon by trade competitors of the British in Asia and was focused upon the opium trade in an effort to discredit the British.

Among the Chinese themselves there has always been strong opposition to both the import and cultivation of opium and had it not been for unscrupulous officials, who found profit in the exploitation of the people's vices, the cultivation of the poppy would never have been tolerated and the foreign importers would not have had their best apology for carrying on their trade long after public opinion condemned it. The Manchu Imperial Family opposed both the growth and the import of opium, and this opposition in high places communicated in a bungling fashion through the medium of certain tactless officials in the South brought on what is known as the Opium War with Great Britain. The writings and personal influence of men like Chang Chih-tung, the famous viceroy, have had much influence upon public opinion and many anti-opium societies have grown up and have worked industriously in the interior. In some districts the Moslem elements of the population have helped materially during the last ten years to discourage the growth of opium, and Moslem leaders have always strongly seconded every attempt on the part of sincere Chinese officials to prevent the growth, sale, and use of the drug. With all of these influences at work the Chinese people have long been ready to concede that they were much worse off in every way for the introduction of opium and have never failed to respond to an earnest attempt to eradicate the blight. The coöperation which the people have given their officials during these ten years of opium suppression is good evidence of a very general desire on the part of all Chinese to be permanently rid of opium. It will be remembered that one of the last provinces to stop the cultivation of the poppy was the remote province of Kansu. As late as the summer of 1913, the year in which the British Government stopped the export from

India, every fertile and low lying valley in that mountainous region was pink and white with poppies and the crop reaped was exceptionally large. In the early autumn there came from Peking a stringent order to do away with opium growing, selling and export, and many Chinese officials, misjudging the temper of the uncouth and unruly Kansu people, resigned their offices rather than attempt to suppress opium with the limited and ill equipped forces at their command. Yet when proclamations were issued and the people were given to understand, through the numerous channels of mouth-to-mouth communications which are always at the command of a Chinese official, that the mandate was serious, the planting simply came to an end and the farmers, who had grown nothing but opium for several years, took up the older culture of wheat, barley, and beans as cheerfully and resignedly as one could imagine.

Opium smuggling and surreptitious planting of course continued in remote and inaccessible districts, as was to have been expected and it still continues, for the profits outweigh the risks in the minds of many poor but adventurous people who find it exceedingly difficult to earn a decent living. The evil effects of the very widespread use of opium in China during the past few generations are beyond survey or tabulation and yet if the suppression were permanent they would be no more than a hazy evil memory in the minds of the rising generation; but the losses and sufferings caused by the stringent suppression of opium planting and the sale of the drug among a people who find it difficult to resist the temptation of big profits, have been even more conspicuous and tangible than the slow effects of the drug upon its victims. Executions and fines have made a deeper and more lasting impression than the slow decline and collapse of the numerous smokers and eaters of opium who have graced every Chinese community, and the memory of the lives lost, the treasure sacrificed and the trade ruined by a methodical enforcement of the anti-opium laws, is still very fresh with the people. It certainly will not be comforting to these people, who will concede to a man that the suppression was just and desirable, to know that their sufferings and losses have only been endured—in most communities without a murmur—so that a group of insatiably greedy Chinese officials could take over the monopoly on imported opium and revive the inevitable traffic in the native product which must follow the opening of licensed shops in their own selfish interest. Nor is it likely that the hundreds of high officials and thousands of minor functionaries who conscientiously discharged their duties during the period of opium suppression and thereby became responsible for the execution of offenders beyond count and for the ruin of innumerable families, will find that they can consistently recognize the resurrection of opium under official auspices.

The Chinese have always relied in their troubles upon the sympathy and sentimental support of the Occidental peoples. The present Government has, for the past year, done a great deal to alienate these sympathies from the unfortunate Chinese people whom they are supposed to represent. China has been losing her grip upon Occidental attention because her Government has shown a deliberate contempt for Occidental opinion and Occidental good will, and not because the people are any less deserving than they ever were. Nothing, however, can possibly detract so much from China's reputation abroad as the revival of the opium trade, and the Chinese people, innocent as they are in their ignorance of the activities of the small group of officials recognized as their Government, will find, if they are ever again in need of moral support from Great Britain or America, that the popular enthusiasm for the preservation of their rights and independence which it has been so easy to arouse in the past will have been damped. In the long opium controversy the British people were won over to the Chinese side against the best efforts and arguments of cynical critics of the Chinese. It was said that China did not want the foreign opium because it competed with her own. It was said that as soon as an end had been put to the British traffic in Indian opium, the Chinese would revive the trade in their own interest; and these assertions were keenly resented by the Chinese leaders in the task of opium suppression as well as by the numerous foreigners who devoted much hard work to the furtherance of China's pleas for the suspension of the trade. But the present Chinese Government has shamelessly justified the cynics and is doing its best to prove its own anti-opium workers and their foreign collaborators fools in the sight of the world.

If a syndicate licensed by the Chinese Government can revive the opium trade in the face of public opinion, there is no reason to believe that it will be limited to any particular province or that it will come to an end again when the limited stock of Indian opium now in bond is sold out.

The agreement with the new Syndicate is said to stipulate that the purchased Indian stocks are to be sold in the provinces of Kiangsu and Kiangsi (two very rich districts in the Yangtze Valley) only, but once the opium is released, the sale of it in any one area, no matter how restricted, will stimulate both the growth and sale in other districts and it will be impossible for the Government, even if it sees fit, to arouse enough interest in the suppression of opium among the officials in other provinces to put an effectual check upon it. It must also be patent that a group of officials unscrupulous enough to revive a trade which has cost China so much suffering, so much treasure and so many lives in the past, after it has been effectually suppressed, will not be limited by the stock in hand in the volume of their trade, but will buy in any market that offers and sell wherever there is profit.

It is impossible to believe that when the facts of this deal become fully known to the officials who have been responsible for thousands of executions during the period of opium suppression and to the people who have submitted meekly to the most rigorous measures, there will not be widespread opposition in China. It seems inevitable also that some share of popular resentment will be visited upon the Combine and upon the British generally by the Chinese rank and file who do not understand how little sympathy exists between the British Legation and the Shanghai opium monopoly. The Chinese are hoping that the British will find grounds for protesting to the Chinese Government against the resumption of a trade which they helped materially to stamp out, not only by cutting off Indian exports at a heavy loss, but also by exercising close supervision over the suppression of native opium. The recent report of the resumption of opium planting in Shensi gave the British Legation ground for a protest and as the revival of the trade on a large scale is a much more serious and more deliberate breach of China's moral obligations, it should certainly call for a much more determined interference. The British Government's power of interference with the Combine's sale of the stocks is questioned in foreign circles, but the Chinese cannot understand why such a deal, which is certainly in violation of the spirit if not of the text of the various opium agreements and treaties should not be summarily canceled by the Legation. The Combine has of course been careful not to bring the case under close official scrutiny by filing documents or asking for support, since it has been clearly understood that it would receive none, but it is nevertheless difficult for the Chinese people to understand why the Legation could not upon its own initiative take steps to prevent the consummation of a scheme entered into by a few unscrupulous merchants on the one hand and a clique of irresponsible Chinese officials on the other hand to reinflict opium upon a people who have paid so heavily in every way for the permanent suppression of a national vice. The Chinese people are not sufficiently organized to take prompt action in a case like this in checking their own nominal representatives, but the British Government, fully informed, and with all the machinery of a big system at its command, should take every possible step to protect British prestige on the one hand and to protect the Chinese people from the officials, who would sacrifice their happiness and well-being for a miserable profit, on the other hand. Although no provision was made in previous agreements with the Chinese Government for the disposition of a surplus stock of opium, there was certainly no exception mentioned when the sale of opium by the Combine in China was prohibited after March 31, 1917. When the Combine applied last year for an extension of the time limit, the application was made to the Chinese Government direct and not through the British Legation, which would seem to imply that the British restrictions upon the opium traffic cover the export from India only and that opium landed in China may be handled by British subjects under conditions imposed by the Chinese Government only. If this is true any British subject is free to deal in any opium which he can land in China subject only to Chinese law. While this seems to be the Combine's interpretation of the treaties and while it may be the correct interpretation, it is certainly not in accord with the popular impression and is just as surely in contravention of the spirit of the British restrictions which were meant to stop British opium trading in China and not to give the British opium trader the liberty of doing as much business as he could arrange to do with the connivance of corrupt Chinese officials. If the British restrictions cover nothing more than Indian exports then the traders are at liberty to do as large a business as they like in Persian and Turkish opium whenever the Chinese Government sees fit to remove the ban on imports from these countries or to do business in smuggled opium whenever the Chinese care to remove local restrictions in any one community. If this is the case the British Legation is in no position to quarrel with the Combine for selling to the Government, but if there is any legislation which prohibits British subjects from selling opium to individuals or groups in China, then the Combine is just as liable to control for selling to a willing Chinese Government as it would be for selling to individuals in violation of Chinese law. If there are no restrictions upon sales, it is because no such sales were anticipated and not because the British people or the British Government approve of sales or would approve of any of its subjects taking advantage of a Chinese lapse of grace to inflict opium upon the Chinese people. When the opium trade came to an end last March the British people thought they were done with it and after carrying the burden of odium which it had brought upon them for half a century they were only too delighted to see the end of it. The revival of the trade through an evasion of the restrictions, or through the neglect of British officialdom to foresee a collapse of Chinese morals, will certainly not be pleasing to the general British public, and one can readily prophesy that when the deal comes up for discussion abroad the British people will want to know why and how it happens that a Combine of dealers in opium in conjunction with a clique of greedy Chinese profiteers are able to undo the combined efforts of the Chinese people and their foreign sympathizers.

The Chinese Government is ready enough with its apologies and excuses, and the Combine can always prove that it is a business organization purely and simply and has nothing to do with China's public morals, but no amount of apology will clear either the opium merchants or the official speculators in Peking of the direct charge of reintroducing opium in China and no amount of sophistry can persuade either the Chinese or the foreign public that the recent deal is anything other than a complete negation of all the steps taken during the last generation for the suppression of opium.

Mediums of communication and publicity in China are so poor and Chinese public opinion, such as it is, is so unwieldy that it is almost impossible through any sort of propaganda to get a reaction from the masses in time to intercept the consummation of such a deal as this transfer of the Indian opium stocks to a licensed Syndicate through the medium of the Chinese Government. Yet the Chinese who are stirring themselves to arouse public opinion feel that it would be to China's advantage to anticipate an objection of any sort from the British Legation by taking action on their own account. A spontaneous opposition on the part of the people would not only enhance China's prestige abroad, of which the people are infinitely more jealous than the officials, but it would also enable the people to dispose of the stocks in their own way. They argue that if the agreements are canceled through a British protest the opium will simply remain in the bonded godowns as an everlasting temptation to unscrupulous officials and that the Combine, which cannot be forced to reëxport will simply resume its conspiracies with its agents in official circles so that the same sort of machination which now has to be dealt with will have to be dealt with from year to year and from generation to generation until some self-respecting Chinese Government buys over the poison and destroys it. This is precisely what the Chinese would have the Government do now and the opposition to the deal which is quietly growing and organizing is being focused upon this objective. The argument presented is this. The opium stock is purchased by the Government with National Bonds and the drug is therefore the property of the people. Now let the people insist upon their right to dispose of their property according to their inclinations; let them force the Government to take delivery of the opium and destroy it in the most conspicuous fashion under the proper auspices. No solution of the difficulty could possibly put a more fitting end to the opium traffic or do more to win the Chinese the esteem of Occidental peoples. It would afford the official clique in Peking some opportunity, moreover, to emerge gracefully from what can only be described as the filthiest and most criminal deal in a long series of reprehensible bargains.

The various agreements covering the import and sale, as well as the suppression of opium, were published in the FAR EASTERN REVIEW in June, 1917. The organization of the Combine, however, still remains something of a mystery to many who have not made a detailed study of the opium question, so, for the purpose of rounding out the history of the Indian opium traffic in China the agreements upon which the organization of the Combine is based are given below:

The Shanghai Opium Combine Agreements

The Formation of the Combine

AGREEMENT made this First day of May, one thousand nine hundred and thirteen BETWEEN the firms, companies, and individuals whose names and signatures are appended hereto and comprise all the Foreign Opium Merchants of Shanghai and who have combined together to form the Shanghai Opium Combine.

WHEREAS by a provisional agreement dated the Third day of March, 1913, and made between the Committee of the Foreign Opium Merchants' Combine and the Chinese Opium Guild, after reciting that a Combine had been formed among the Foreign Opium Merchants in conjunction with the Chinese Opium Merchants, members of the Chinese Opium Guild, for mutual benefit, protection, and assistance, it was, *inter alia*, agreed that the stocks of Bengal Opium should be dealt with as therein mentioned and that a final and complete agreement should be entered into embodying the terms of such provisional agreement, and adding any other provisions consistent therewith which might be agreed on to set out in more detail the arrangement embodied therein.

AND WHEREAS such final and complete agreement as is hereinbefore mentioned has been prepared and signed for the purpose of identification by Mr. S. A. Levy, and it is intended that the same shall be entered into immediately after the signing of these presents.

NOW IT IS HEREBY AGREED by and between all the parties hereto as follows:

1.—This agreement shall take effect from the date hereof and shall continue in force until the whole of the stocks of both Bengal and Malwa Opium in Shanghai held by the signatories hereto members of the Combine are disposed of unless previously determined as hereinafter mentioned.

HOW THE COMBINE MAY BE DISSOLVED

2.—To determine this agreement and dissolve the Combine the following procedure must be adopted.

(*a*) A general meeting of the members of the Combine must be duly convened by the Committee hereinafter mentioned and Seven clear days' notice in writing must be given of such meeting to all members of the Combine.

(*b*) Such notice must state that the object of the meeting is to pass a resolution to determine this agreement and to dissolve the Combine.

(*c*) Such resolution must be passed by a majority of those present at the meeting and holding a majority of the then existing stocks of opium (bargain stock to be treated for the purpose of voting as unsold stock) and must be confirmed by a similar majority at a meeting to be held not more than thirty days or less than fourteen days after the first meeting.

(*d*) If such resolution is duly passed and confirmed by the requisite majority this agreement shall be determined and the Combine dissolved at the expiration of Six calendar months from the date of the passing of the said resolution.

Retirement of a Member

3.—Any member may retire from the Combine and determine this agreement so far as he is concerned by giving to the Committee Six calendar months' previous notice in writing of his intention to retire, and at the expiration of such Six calendar months he shall be deemed to have ceased to be a member of the Combine and he shall be no longer bound by the terms hereof, Provided that nothing herein contained shall free any member from any liability already incurred in respect of any obligation to pay damages for breach of any obligation herein contained or in respect of the performance of and award made hereunder. On the retirement of any member as aforesaid this agreement shall remain in full force between the other parties hereto.

Committee to Be Appointed

4.—The affairs of the Combine shall be managed by a Committee of the members thereof consisting of not less than seven or more than ten persons. Such Committee shall be elected at a meeting of the members of the Combine to be held as soon as possible after the signing hereof.

Term of Office

5.—Such Committee shall hold office for one year from date of appointment, and during such period they shall have the right to fill up any vacancies which may occur in their numbers; members may be reëlected after the expiration of their term of office or others may be elected at a General Meeting to take their place. They shall elect their own Chairman.

Quorum, etc.

6.—Six members of the Committee shall form a quorum, and a majority of those present shall make any resolution of the Committee effective.

Powers and Duties

7.—The powers and duties of the Committee shall be:

(*a*) To sell opium, fix prices, allocate deliveries and supervise and control the disposal of the stocks of opium and the apportionment of sales in accordance herewith.

(*b*) To use their best endeavors to see that this agreement is duly carried out and in the name of the Combine to prevent, punish, or obtain damages or compensation for any breach thereof.

(*c*) To employ and pay such assistants, clerks, accountants, legal advisers or others as may be requisite for conducting the business of the Combine.

(*d*) Generally to manage and superintend all the affairs of the Combine.

Expense of Management

8.—The Committee shall be empowered to deduct such sum as they may think necessary from the proceeds of sale of every chest of Bengal opium and to charge such sum as they think necessary on every chest of Malwa opium allotted for sale to cover the cost of managing the affairs of the Combine, and conducting the business thereof. Any surplus will, on the winding up of the Combine, be divided among the then members thereof in proportion to the chests they have delivered.

Addition to Agreement sanctioned at General Meeting of the Members held on Wednesday, October 8, 1913:

"That in paragraph 8 of the Combine Agreement dated the 1st of May, 1913, there be inserted after the words 'allotted for sale' and before the words 'to cover the cost' the following words 'and to charge similar sums, or such other sums as they think expedient on every chest of Bengal or Malwa Opium exported from Shanghai out of the registered stocks in Shanghai of the members of the Combine.'"

Alteration in Agreement, sanctioned at General Meeting of the members held on Wednesday, December 3, 1913.

That the following paragraph be substituted for Paragraph 8 in the Agreement dated the 1st of May, 1913:

"In order to provide money for the payment of the expenses of managing the affairs of the Combine and conducting the business thereof, the Committee shall be empowered to impose and levy a contribution on all stocks of opium, whether bargain or unsold, registered with the Combine; and, to give effect thereto, the Committee shall be empowered to deduct such sum as they think necessary from the proceeds of sale of every chest of Bengal opium, and to charge such sums as they think necessary on every chest of Malwa opium allotted for sale, and to charge similar sums, or such other sums as they think expedient, on every chest of Bengal or Malwa opium exported from Shanghai out of the registered stocks in Shanghai of the members of the Combine. In the event of any member of the Combine giving notice and eventually withdrawing from this agreement, the stocks standing in the name of such member at the time of such withdrawal shall be subject to contribute the same amounts per chest as levied on stocks sold or dealt with by the Combine at the time of withdrawal. It is further agreed that all registered stocks of opium whether Bengal or Malwa at the time when the Combine is wound up or dissolved shall also contribute the last ruling rates per chest as the Combine may have levied on stocks sold or dealt with by the Combine. Any surplus of the above contributions will on the winding up of the Combine be divided among the members thereof in proportion to the chests they have delivered, and/or the chests they have shipped and paid charges thereon. and their registered stocks remaining at the winding up of the Combine."

General Meetings

9.—The Committee shall whenever necessary convene general meetings of the members of the Combine to discuss the affairs of the Combine and to decide any matters arising in connection therewith, and they shall convene a general meeting on a requisition signed by at least four members of the Combine. Such meetings shall be convened by notice in writing which shall state the object or objects of the meeting and the matters to be dealt with thereat.

Bengal Opium

10.—The following provisions shall apply to Bengal Opium:

(*a*) One half of the sales of Bengal Opium made through the Combine shall be apportioned among the members of the Chinese Opium Guild in accordance with a Statement prepared by the Guild dated February 17, 1913, and registered at the Combine Office, until all the opium included in such statement is exhausted.

(*b*) After the stocks contained in the statement dated the 17th of February, 1913, are exhausted then the 681 chests known as the Calcutta Indent Cargo, as per list already published, shall take the place of the stocks contained in such statement and be apportioned one half of the sales.

(*c*) The other half of the sales, namely those apportioned to the Foreign Merchants, shall be divided *pro rata* between bargain stocks and participating unsold stocks.

(*d*) After the stocks referred to in (*a*) and (*b*) hereof are exhausted the whole of the sales shall be divided *pro rata* between bargain stocks and participating unsold stocks.

(*e*) The Printed Regulations appended hereto dated March 1, 1913, shall be observed by all the parties hereto.

Malwa Opium

11.—The following provisions shall apply to Malwa Opium:

(*a*) The Committee shall from time to time make allocations for sale of such a number of chests as they think fit, and shall issue certificates for all chests so allocated, and until the whole of the chests for which certificates have been so issued have been sold and fully paid for no further allocation will be made.

(*b*) Of the amount so allocated as aforesaid one half shall be apportioned to bargain stocks and the other half to unsold stocks. The amount to be allocated to each person or firm shall be arrived at by taking the proportion which his or their holding both of bargain and unsold stocks bear to the aggregate holding of both bargain and unsold stocks.

(c) In the case of bargain stock the Foreign Merchant will divide the amount allocated as nearly as possible *pro rata* among his Chinese dealers, and he will notify them of the amount so allotted for sale. The Chinese dealer has the option to take up the amount so allotted at contract price but if he fails to do so within 24 hours of notification then the Foreign Merchant can sell the amount not taken up to others at the Combine price, the Chinese dealer being responsible for any difference between such Combine price and the contract price, but such notification shall only be given after the whole of the portion allotted to unsold stocks is sold.

(d) In the case of unsold stock for which a certificate has been issued the same can be sold at Combine prices but not otherwise.

(e) No chests can be sold without such a certificate as aforesaid whether bargain or unsold stock.

(f) All dealers whether buying bargain or unsold stocks must sign a contract promising to clear the cargo within one week of signature and must deposit Tls. 200 per chest as a guarantee of due performance of the contract. If the cargo is not taken delivery of within such one week then the deposit will be forfeited to the seller and the Opium may be sold to others. If the week expires on a Saturday or Sunday it shall be considered as terminating on the ensuing Monday.

(g) If any dispute shall arise as to the quality of the Opium for which certificates have been issued the same shall be referred to an arbitration committee consisting of three Foreign and three Chinese members of the Combine whose decision shall be final.

(h) Every member of the Combine hereby solemnly undertakes and agrees not to sell Opium unless a certificate has been issued in respect thereof and at other than Combine prices.

UNDERTAKING BY FOREIGN MEMBERS

12.—The members of the Combine hereby undertake and agree with the other members of the Combine and with the Committee thereof that they will not sell Bengal or Malwa Opium to any Chinese dealer who is not either a member of the said Guild or enrolled as an associate thereof, or to any person who is not member of the Combine and will not export to any port of China or send into the interior of China any Opium which has not been supplied by the Shanghai Opium Combine.

OPIUM FOR HONGKONG

13.—The members of the Shanghai Opium Combine hereby undertake and agree with the other members of the said Combine and with the Committee thereof not to ship any Opium to Hongkong except to members of the Hongkong Combine so long as there is a Combine existing in Hongkong.

AGREEMENT TO PAY DAMAGES FOR BREACH

14.—AND WHEREAS this agreement has been entered into for the benefit of all the parties hereto and to save all parties hereto from the certainty of great loss and to avoid a terrible financial crisis owing to the exceptional political situation and the repudiation by the Chinese Authorities of Treaty obligations, AND WHEREAS it is admitted by all parties hereto that a breach by any party of any of the stipulations contained in this agreement will cause serious loss to all, NOW each party hereto solemnly agrees with the others, and with the Committee of the Combine, that he will pay to the Committee of the Combine as liquidated damages for such loss the sum of Tls. 1,000 per chest in respect of every chest of Opium sold, exported, or disposed of contrary to the stipulations contained in this agreement, and it shall be the duty of the Committee to enforce strictly the observance of this agreement and any money paid as such damages as aforesaid shall be dealt with as the members in general meeting shall determine.

LOSSES OF BARGAIN STOCK

15.—If any loss shall arise on bargain stock it shall be paid by the dealer concerned to the Foreign Merchant concerned, but in case the dealer says he has no money to pay such loss and that question is in doubt, then it shall be referred to an arbitration committee consisting of three Foreign Opium Merchants and three Chinese Opium Merchants to determine whether the whole of such loss shall be paid, or how much (if any) shall be paid, and at what time or times it shall be paid; and the decision of such arbitrators shall be final and conclusive, and no proceedings in Court shall be taken against him unless he refuses to carry out the award of such arbitrators. Any profit realized on bargain stock, or any loss thereon subject to such arbitration, shall be settled between the Foreign Merchant concerned and the Chinese Merchant concerned separately and individually.

INSPECTION OF BOOKS

16.—The Committee shall have the right to inspect the books of account and vouchers of any sellers of opium and of their compradors and also those of their buyers, and the sellers shall produce the same as and when required and shall furnish the Committee with all such information as may be reasonably required.

ADDITIONS AND ALTERATIONS

17.—No addition or alterations can be made to this agreement unless the same shall have been sanctioned by a resolution passed by a majority of those present at a general meeting of the members of the Shanghai Opium Combine convened for the purpose, and no additions or alterations can be made which are inconsistent with the principles of this agreement.

IN WITNESS whereof the hands of the parties hereto.

Names of Parties Hereto: *Signatures:*

DAVID SASSOON & Co., Ltd.
D. M. NISSIM, Manager.
E. D. SASSOON & Co.
S. J. DAVID & Co.
E. PABANEY.
CAWASJEE PALLANJEE & Co.
Per pro. TATA SONS & Co.
B. H. DASTUR.
D. E. J. ABRAHAM.
H. NEOTIA & Co.
CURMALLY JANMAHOMED & Co.
PERSIAN COMMERCIAL Co.
R. S. KERMANI.
G. PURTON,
On behalf of Messrs. MEYER BROS., Singapore.
D. M. GUBBY.
EDWARD EZRA & Co.
ELLIS I. EZRA.
S. S. SOMEKH.
B. A. SOMEKH & Co.
S. M. S. GUBBAY.
R. E. KADOORIE.
LEONE A. LEVY.
N. S. LEVY.
OMMID & Co.
D. M. DAVID.

Bengal Regulations

(1).—Each merchant shall state for what quantities of each quality he wishes to participate in the next ensuing sale. Unless he writes in to the contrary, it will be assumed that he wishes to participate for the whole of the stock held by him. All bargains must participate in all sales effected by the Combine in proportion to participating unsold stocks. Any merchant has the option of temporarily withdrawing a portion or the whole of his unsold stocks from participation in the sales by giving timely notice in writing. On the evening of the last day during the period in which sales are taking place, a list of participating stocks for the following sales period shall be made up, such list on no consideration to be altered.

(2).—One half of the chests sold each period shall be delivered to the Combine by the Chinese Opium Guild—until the Chinese owned stocks, as per Guild's List of February 17, 1913, are exhausted—who shall be paid for the same at the price settled for each quality, less a certain charge per chest for the Combine expenses. Portions of a chest shall be neglected for one sales period and made up as soon as a whole chest can be conveniently allotted.

(3).—Each merchant to be entitled to deliver in proportion to the total stock put up by him compared to the total stocks put up each period.

(4).—The Combine will allocate to each merchant the Stock he is to deliver, following as far as possible, the proportions he holds of different qualities sold: this allocation will be made after it is known what qualities the Chinese propose to deliver.

(5).—The total stock sold during each sales period will be divided: a memo will be kept of fractions; i.e., one man to whom are allotted say 22½ chests for one sales period, will be allowed to deliver 23 chests; being entitled to a similar allotment for the next sales period, he will be allowed to deliver 22 chests only. In the first instances preference will be given to the smaller holders.

(6).—The total sum received for any period's sales will be divided, after reserving a certain sum per chest for expenses: any resultant surplus on this reserve will be eventually divided amongst the different members of the Combine in proportion to the chests they have delivered.

(7).—A merchant delivering a certain quality would be paid at the price settled for that period for that particular quality, such prices to be calculated thus:

> The total number of chests sold will be multiplied by the selling prices ruling on the last day of the sales period of each quality, thus arriving at the sum which would have been realized had all the sales for that period been made on the last day of the sales period at such prices; the difference between this sum and the amount actually realized will be divided by the total number of chests sold and the difference in the price of a chest will be added to, or deducted from the selling prices quoted on the last day.

Working on this system, the following is an example:

(1st Sales Period)

Sales during the Period:

83 chests	V.O. Patna	Total Taels 740,900
133 ,,	O. Patna	
6 ,,	V.O. Benares	
79 ,,	O. Benares	
301		

Take the quotations of last day of the Period and account the above Sales at those Prices: The Prices were V.O.P. 2530; O.P. 2630; V.O.B. 2710; O.B. 2780 on the last date of the period:

Therefore:

83 chests V.O.P. at 2530=	209,990
133 ,, O.P. at 2630=	349,790
6 ,, V.O.B. at 2710=	16,260
79 ,, O.B. at 2780=	219,620
	795,660
Deduct actual amount realized	740,900
Difference ...	54,760

Divide the difference by quantity of chests sold:

301) 54760 (182.

Deduct the result from quotations of last day of weeks as follows:

	V.O.P.	O.P.	V.O.B.	O.B.
Quotations	2530	2630	2710	2780
Deduct	182	182	182	182
Distributing Prices	2348	2448	2528	2598

Subject to a deduction for expenses of Tls. 10.00 per chest.

Participants' Share in First Sale

Total Participating Stock: 5312

Total Sales: 150

NAME	Total Stock Chests	Share Chests	80 O.P.		Apportioned as Below		70 O.B.	
			V.O.P.	O.P.	N.P.	V.O.B.	O.B.	N.B.
E. D. Sassoon & Co.	863	24	—	11	—	—	13	—
David Sassoon & Co.	941	27	—	12	—	—	15	—
H. Neotia & Co.	753	21	—	8	—	—	13	—
C. Pallanjee & Co.	394	11	—	8	—	—	3	—
E. Pabaney	244	7	—	3	—	—	4	—
Edward Ezra & Co.	619	18	—	10	—	—	8	—
S. J. David & Co.	415	12	—	9	—	—	3	—
D. E. J. Abraham	453	13	—	7	—	—	6	—
Tata Sons & Co.	159	5	—	5	—	—	—	—
Meyer Bros. (Purton)	165	5	—	—	—	—	5	—
do. (D. S. & Co.)	24	1	1	—	—	—	—	—
Ellis I. Ezra	116	3	3	—	—	—	—	—
B. A. Somekh & Co.	30	1	1	—	—	—	—	—
H. M. H. Nemazee & Co.	18	1	—	1	—	—	—	—
Leon Levy	41	1	1	—	—	—	—	—
	5,235	150	6	74	—	—	70	—

MEMO OF FRACTIONS

Carried over and to be taken into account in the next distribution.

	Over paid	Under paid
E. D. S.	—	.36
D. S. & Co.	.43	—
Neotia	—	.25
Pallanjee	—	.13
Pabaney	.10	—
Ed. Ezra	.52	—
S. J. David	.30	—
Abraham	.19	—
Meyer Bros.	.34	—
do.	.32	—
Tata Sons	.51	—
Ellis Ezra	—	.27
B. A. Somekh	.15	—

	Over paid	Under paid
Persian Com.	—	.33
Afshar	—	.41
Nemazee	.49	—
Kadoorie	—	.28
N. S. Levy	—	.28
Perry	—	.28
D. M. David	—	.12
Gubbay	—	.10
Gubbay	—	.10
Leon Levy	—	.16
Eastern Bank	—	.28
	335	335

TOTAL SALES FIRST PERIOD: FEBRUARY 18 TO MARCH 1, 1913

	V.O.P.	O.P.	V.O.B.	O.B.	Total
Sales	83	133	6	79	301
Delivered by Chinese for their share	87	48	6	9	150
	-4	85	—	70	151
Quality overdelivered by Chinese accounted for by next nearest quality, i.e., O.P.	+4	-4	—	—	—
	—	81	—	70	151
Carried over to next distribution	—	1	—	—	1
Share of Foreign Merchants	—	80	—	70	151

(8).—Should a merchant not be able to deliver his proper share of any particular quality, not having a stock of the same, he will be allowed to substitute same by another quality at the discretion of the Committee and he will receive the price of the quality delivered. In the event of such substitution the Committee will, as far as possible, allocate the difference amongst the other merchants according to their stocks of the different qualities.

(9).—**Deliveries:** Storage orders will be issued against Cash only, as and when a sale is made: these will be recorded by Messrs. David Sassoon & Co.'s Godown Office, and further will be recorded in the Combine Books, where only one stock account will be kept in the name of David Sassoon & Co. When the dealer wishes to take actual delivery he presents his order to David Sassoon & Co.'s Godown, who deliver and collect charges to date.

As a distribution is made. Opium delivered to dealers by David Sassoon & Co. has to be replaced by Opium from different participants: these will either deliver the Opium to David Sassoon & Co.'s Godown against Cash or will hand over to David Sassoon & Co.'s Godown documents of title to such Opium, which will remain, in the name of David Sassoon & Co., in an outside Godown.

The Combine will sanction orders on David Sassoon & Co. and on outside godowns when necessary.

(10).—**Labeled Opium:** From dealers or merchants delivering such Opium will be deducted Taels 100 or such sum per chest as is the market difference.

(11).—The Combine may refuse to take opened chests. Delivery of such can only be taken when the deliverer gives a guarantee.

(12).—No payments will be made until delivery orders have been verified.

(13).—The Committee of the Combine shall at all times determine any minor points arising out of or not provided for in the above scheme and regulations.

Shanghai, March 1, 1913.

AGREEMENT BETWEEN THE COMMITTEE OF THE FOREIGN OPIUM MERCHANTS COMBINE AND THE CHINESE OPIUM GUILD

AGREEMENT made this First day of May, One thousand nine hundred and thirteen, BETWEEN THE COMMITTEE of the FOREIGN OPIUM MERCHANTS COMBINE, which Combine comprises all the Foreign Opium Merchants of Shanghai, and is hereinafter referred to as the "Shanghai Opium Combine," of the one part, and the Chinese Opium Guild and all the members thereof of the other part.

WHEREAS all the Foreign Opium Merchants of Shanghai have formed a Combine in order to save all concerned in the Opium trade from financial collapse and ruin which would have inevitably followed had no such union been formed.

AND WHEREAS a Committee has been formed to manage the affairs of the Combine and to sell opium, fix prices, allocate deliveries, and supervise and control the disposal of stocks and the apportionment of sales in accordance with this agreement.

AND WHEREAS, by a provisional agreement dated the third day of March, 1913, and made between the Committee of the Foreign Opium Merchants Combine and the Chinese Opium Guild, after reciting that a Combine had been formed among the Foreign Opium Merchants in conjunction with the Chinese Opium Merchants, members of the Chinese Opium Guild, for mutual benefit, protection, and assistance, it was *inter alia* agreed that the stocks of Bengal Opium should be dealt with as therein mentioned, and that a final and complete agreement should be entered into embodying the terms of such provisional agreement and adding any other provisions consistent therewith which might be agreed on to set out in more detail the arrangement embodied therein.

AND WHEREAS these presents are such final and complete agreement as is hereinbefore mentioned.

NOW IT IS HEREBY AGREED by and between all the parties hereto as follows:

Commencement and Duration of Agreement

1.—This agreement shall take effect from the date hereof and shall continue in force until the whole of the stocks of both Bengal and Malwa Opium in Shanghai held by the members of the Combine and of the Guild are disposed of unless previously determined as hereinafter mentioned.

How Agreement May Be Determined

2.—Either of the parties hereto may determine this agreement by giving to the other six calendar months' previous notice in writing of intention to determine the same and at the expiration of such six months this agreement shall be treated as determined **provided** that nothing herein contained shall free any member from any liability already incurred in respect of any obligation to pay damages for breach of any obligation herein contained or in respect of the performance of any award made hereunder.

Bengal Opium

3.—The following provisions shall apply to Bengal Opium:

(*a*) One half of the sales of Bengal Opium made through the Combine shall be apportioned among the members of the Chinese Opium Guild in accordance with a Statement prepared by the Guild dated February 17, 1913, and registered at the Combine Office until all the opium included in such statement is exhausted.

(*b*) After the stocks contained in the statement dated the 17th of February, 1913, are exhausted then the 681 chests known as the Calcutta Indent cargo as per list already published shall take the place of the stocks contained in such statement and be apportioned one half of the sales.

(*c*) The other half of the sales, namely, those apportioned to the Foreign Merchants, shall be divided *pro rata* between bargain stock and participating unsold stocks.

(*d*) After the stocks referred in (*a*) and (*b*) hereof are exhausted the whole of the sales shall be divided *pro rata* between bargain stocks and participating unsold stocks.

(*e*) The Printed Regulations appended hereto dated March 1, 1913, shall be observed by all the parties hereto.

(*f*) During the continuance of this agreement interest at the rate of Tls. 8 per month per chest of bargain stock shall be paid by the Chinese concerned to the Foreign Merchant concerned from February 17, 1913, and at the request of the Chinese Merchants it is hereby agreed that such interest shall be collected as and when the opium in respect of which it is charged is sold in accordance with the Provisions hereof.

(*g*) The Foreign Merchants members of the Combine hereby agree not to require payment from the Chinese Opium Merchants who are signatories hereto of any outstanding interest on opium accrued due prior to February 17, 1913.

Malwa Opium

4.—The following provisions shall apply to Malwa Opium:

(*a*) The Committee shall from time to time make allocations for sale of such a number of chests as they think fit, and shall issue certificates for all chests so allocated, and until the whole of the chests for which certificates have been so issued have been sold and fully paid for no further allocation will be made.

(*b*) Of the amount so allocated as aforesaid one half shall be apportioned to bargain stocks and the other half to unsold stocks. The amount to be allocated to each person or firm shall be arrived at by taking the proportion which his or their holding both of bargain and unsold stocks bears to the aggregate holding of both bargain and unsold stocks.

(*c*) In the case of bargain stock the Foreign Merchant will divide the amount allocated as nearly as possible *pro rata* among his Chinese dealers, and he will notify them of the amount so allotted for sale. The Chinese dealer has the option to take up the amount so allotted at contract price but if he fails to do so within 24 hours of notification then the Foreign Merchant can sell the amount not taken up to others at the Combine price, the Chinese dealer being responsible for any difference between such Combine price and the contract price, but such notification shall only be given after the whole of the portion allotted to unsold stocks is sold.

(*d*) In the case of unsold stock for which a certificate has been issued the same can be sold at Combine prices but not otherwise.

(*e*) No chests can be sold without such a certificate as aforesaid whether bargain or unsold stock.

(*f*) All dealers whether buying bargain or unsold stocks must sign a contract promising to clear the cargo within one week of signature and must deposit Tls. 200 per chest as a guarantee of due performance of the contract. If the cargo is not taken delivery of within such one week then the deposit will be forfeited to the seller, and the opium may be resold to others. If the week expires on a Saturday or Sunday it shall be considered as terminating on the ensuing Monday.

(*g*) If any dispute shall arise as to the quality of the opium for which certificates have been issued the same shall be referred to an arbitration Committee consisting of three Foreign and three Chinese Members of the Combine whose decision shall be final.

(*h*) The Guild and every member thereof hereby solemnly undertakes and agrees not to buy opium and the Foreign Members of the Combine hereby solemnly undertake and agree not to sell opium unless a certificate has been issued in respect thereof and at other than Combine price.

Undertaking by Foreign Members

5. The Foreign Members of the Combine hereby undertake and agree with the other members of the Combine and with the Committee thereof and with the Guild that they will not sell Bengal or Malwa Opium to any Chinese dealer who is not either a member of the said Guild or enrolled as an associate thereof, or to any person who is not a member of the Combine and will not export to any port of China or send into the interior of China any opium which has not been supplied by the Shanghai Opium Combine.

Undertaking by Guild

6. The said Guild and the members thereof hereby undertake and agree with the Committee of the Combine and with the members thereof that they will not buy any Bengal or Malwa Opium except from the Shanghai Opium Combine, and will not export to any port of China or send into the interior of China any opium which has not been supplied by the Shanghai Opium Combine.

Agreement to Pay Damages for Breach

7. AND WHEREAS this agreement has been entered into for the benefit of all the parties hereto and to save all parties hereto from the certainty of great loss, and to avoid a terrible financial crisis owing to the exceptional political situation.

AND WHEREAS it is admitted by all parties hereto that a breach by any party of any of the stipulations contained in this agreement will cause serious loss to all, NOW each party hereto solemnly agrees with the other that if any Foreign Members of the Combine shall sell export or dispose of opium contrary to the stipulations contained in this agreement he shall pay to the Guild as liquidated damages for such loss the sum of Tls. 1,000 per chest in respect of every chest of opium sold, exported, or disposed of contrary to the stipulations contained in this agreement and in the same way if any member of the Guild shall buy, export, or dispose of opium contrary to the stipulations herein contained he shall pay to the Committee the same sum of Tls. 1,000 as liquidated damages for such loss in respect of every chest bought, exported, or disposed of contrary to the stipulations contained in this agreement, AND it shall be the duty of the Committee and of the Guild to enforce strictly the observance of this agreement.

Losses of Bargain Stock

8. If any loss shall arise on bargain stock it shall be paid by the dealer concerned to the Foreign merchant concerned, but in case the dealer says he has not money to pay such loss and that question is in doubt, then it shall be referred to an arbitration committee consisting of three Foreign Opium Merchants and three Chinese Opium Merchants to determine whether the whole of such loss shall be paid or how much (if any) shall be paid and at what time or times it shall be paid and the decision of such arbitrators shall be final and conclusive and no proceedings in Court shall be taken against him unless he refuses to carry out the award of such arbitrators. Any profit realized on bargain stock, or any loss thereon subject to such arbitration, shall be settled between the Foreign Merchant concerned and the Chinese Merchant concerned separately and individually.

Expenses of Management

9. The Committee shall be empowered to deduct such sum as they may think necessary from the proceeds of sale of every chest of Bengal Opium and to charge such sum as they think necessary on every chest of Malwa Opium allotted for sale to cover the cost of managing the affairs of the Combine and conducting the business thereof. Any surplus will, on the winding up of the Combine, be divided among the then members thereof in proportion to the chests they have delivered.

Names to Be Furnished

10. The Committee will from time to time furnish the Guild with the names of the Foreign Members of the Combine and in the same way the Guild will furnish the Committee with the names of the members of the Guild and of those who are enrolled as associates thereof.

Inspection of Books

11. The Committee shall have the right to inspect the books of account and vouchers of any of the Chinese Merchants signatories hereto and the Chinese Merchants shall produce the same as and when required and shall furnish the Committee with all such information as may reasonably be required, AND in the same way the Chinese Members shall be entitled to inspect the books of account and vouchers of the Foreign Members of the Combine and of their compradors and the Foreign Merchants shall produce the same as and when required and furnish the Chinese Members with all such information as may reasonably be required.

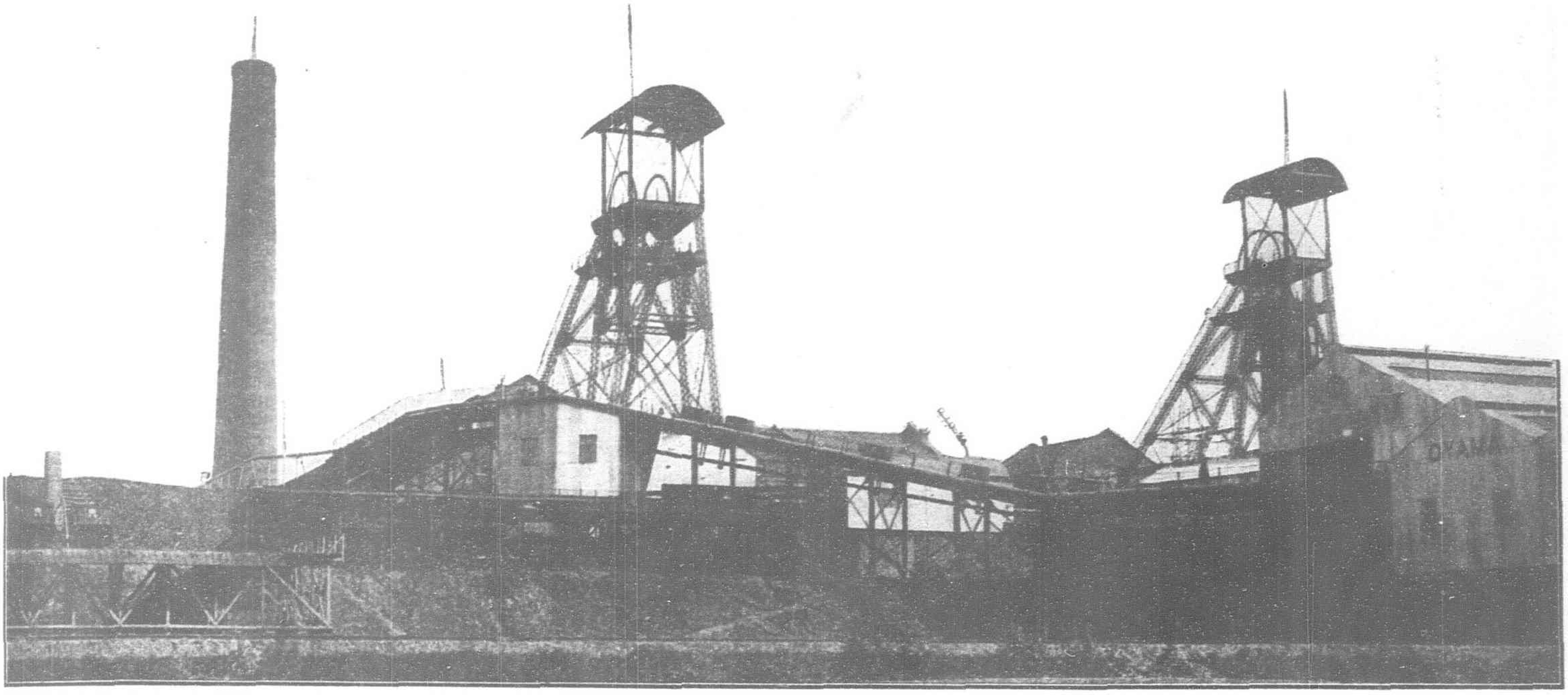
IN WITNESS whereof this agreement has been signed by the members of the said Committee of the Shanghai Opium Combine and sealed with the chop of the said Guild and signed by the Members thereof.

Signed by:

A. Howard, S. A. Levy, E. David, F. Dewjee, B. C. Sethna, B. H. Dastur, D. E. J. Abraham, E. Ezra, R. Bagria, E. Chandoobhoy.

Signed by sixty-nine Members of the Opium Guild.

In June the *New East* (Tokyo) published its first anniversary number. The magazine was started with the object of being instrumental in breaking down "the real barrier between East and West," which is, according to Mr. J. Robertson Scott, the editor, "a distrust of each other's morality, and the illusion that the distrust is *on one side*." Mr. Robertson Scott is to be congratulated upon his courage in undertaking so difficult a task, and upon the stability of his convictions. He has learned much in his first year's experience, no doubt, which will be of great service to him in the future conduct of his campaign. He has succeeded in producing each month a regular compendium of material of great interest to many people, and gradually he is certain to reap the fruits of his effort. If the *New East* can correct the popular view with regard to the morality of the West and the East it will perform a task regarded by representatives of both sections of the globe as impossible. However, it contributes to that desirable end and perhaps in that Mr. Robertson Scott is contented. We wish him all manner of success in his enterprise in the coming years.



Oyama Pit, Fushun Colliery, Manchuria

Great Manchurian Coal Seam

The Fushun Collieries

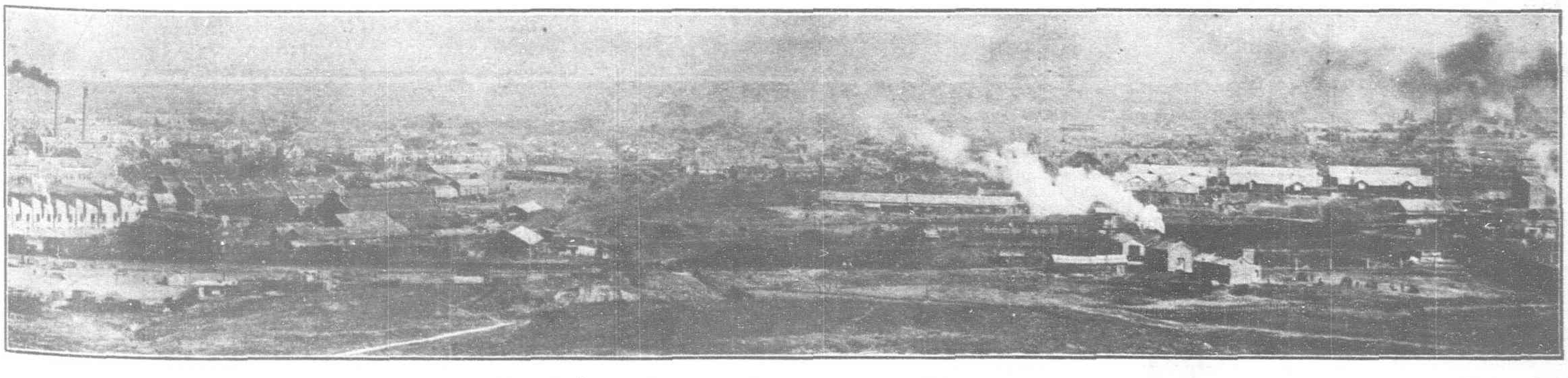
When the Chinese failed to develop the great coal seam at Fushun, twenty miles east of Mukden, Manchuria, through superstition in the first place and willful negligence in the second they allowed to pass out of their hands the richest fuel deposit in the Three Eastern Provinces. If two million tons of coal are produced from this bed each year it is estimated that the supply will last for a century or so. At least 1,000,000,000 tons are "in sight." Chinese lethargy, short-sightedness, and general don't-care-a-damnness caused the pick of the field to go first to Russian control, and thence, as a result of the Russo-Japanese War, to the Japanese Government who placed it in the enterprising hands of the South Manchuria Railway Company. This progressive concern demonstrated to the Chinese in very quick time just what the application of modern methods means. Now Fushun is on the industrial map as one of the most important coal-producing centers in Asia, especially so far as potentialities are concerned.

Even the Koreans showed greater appreciation of the hidden fuel than the Chinese. Sometime in the twelfth century Korean emigrants mined the coal to bake their pottery and provide the fire for other industries. At that time the Tartar dynasties of Liao and Kin occupied the regions and their relations with the Korean kingdom of Kao-li were intimate enough to permit the emigrants to mine and work at Fushun. The founder of the late Manchu Dynasty was, however, a believer in spirits and a disbeliever in holes in the ground. The ancestral tombs were, according to the notions of his time, menaced by the destruction of Fengshui (the "wind and water" spirits) wrought by the hewers of coal, and he promptly prohibited the working of the mines. The great coal seam was forgotten until about 1901 when the then Tartar General Tseng-chi granted concessions to two companies, one a Russo-Chinese concern and the other Chinese, to work mines in the east and the west of the field. Lack of capital soon threw the Chinese into the hands of the Russians, and the latter were carrying on work when the war with Japan compelled a change of ownership. This was in 1905. There were then three levels being worked, with a daily output of 363 tons. Chienchinchai was a small hamlet of some fifty houses. Now there are some 8,500 tons being hewed per day and the erstwhile hamlet is a thriving industrial city with a population of some 13,000 to 15,000 people. In addition to the Railway Company's Mining Office there are established three schools, hospitals, theaters, large buildings connected with the electric light and water installations, commercial houses, etc. In 1907 the site of this development was a field of kaoliang.

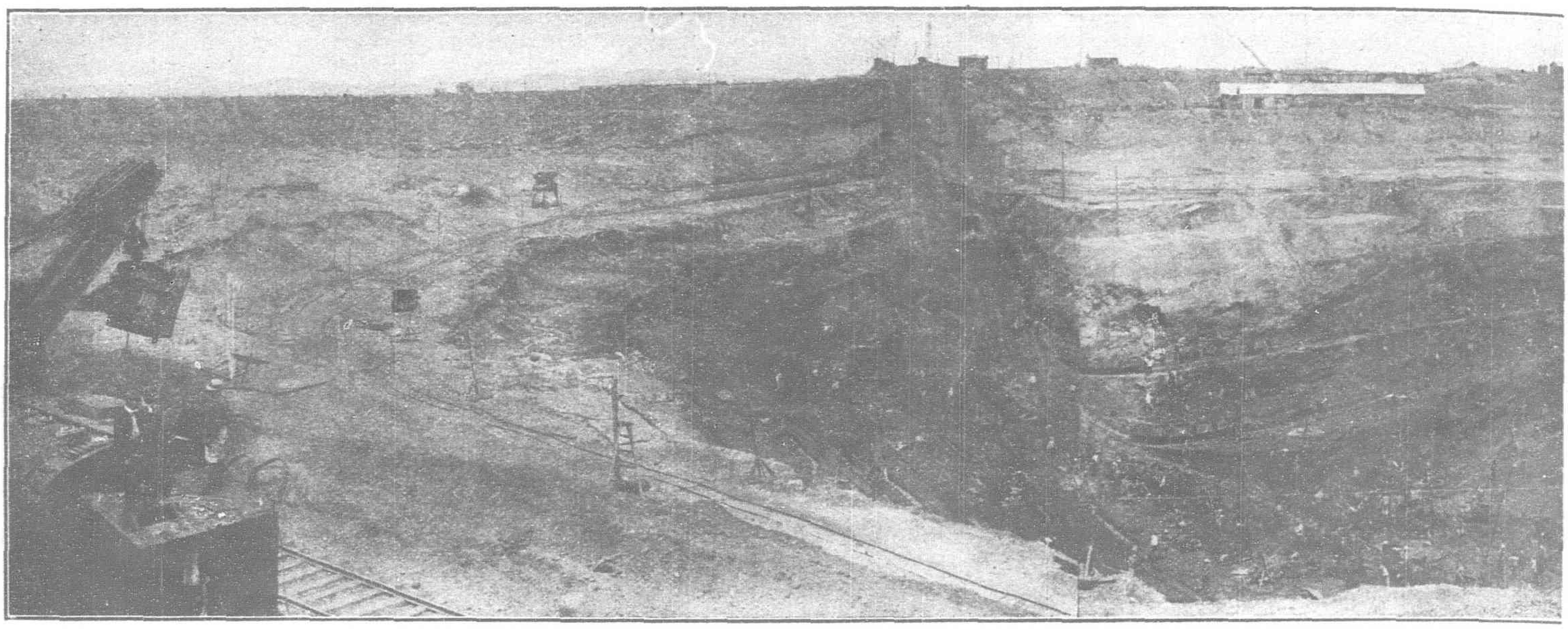
The South Manchuria Railway Company took over the mines from the Military Administrative in 1907 and made radical improvements at the three pits then working—the Chienchintsai, Yangpaipu, and Laohutai. The shafts and drives started by the military authorities were completed and new machinery was installed. The Oyama and the Togo pits were opened, and equipment of the most modern nature was installed. Coal was struck in the Oyama mine at a depth of 1,160 feet, while in the Togo pit it was reached at 863 feet.

The coal seam extends from east to west for nearly ten miles along the strike and dips toward the north with an inclination of 22° to 35°. Two coal seams are known, but only the upper one which is over 120 feet thick is being worked. The coal is noncaking with a fine luster, and of uniform quality, the following being the analysis of an average sample: Water 7.00%; volatile matter, 40.00%; fixed carbon, 48.00%; ash, 4.00%; sulphur, .80%; specific gravity 1.28; calorific power, 6,800. The coal is good for all purposes and is particularly suitable for gas-making and locomotive uses.

The coal belongs to the tertiary period and is surrounded by gneiss of old formation and by basalt rock. The coal-bearing rocks are mostly shales and clay, often with fossil leaves.



The Colliery Town of Chienchinchai, Manchuria



THE OPEN CAST COAL MINE,

The Chienchintsai, Yangpaipu, and Laohutai pits are worked at present by the pillar and stall system, the coal tubs being hauled up by electric as well as steam hauling engines, and hoisted by steam winding engines.

Pumping is done by electric turbine pumps as well as Worthington and Evans' steam pumps.

Lighting is by Davy and Clanny lamps. Ventilation is mostly natural, but one fan engine is installed at the Chenchintsai pit.

The coal is screened either manually or by simple coal screening machines connected with picking belts separating into lump and dust.

Output

The total production of coal for the last fiscal year, April 1, 1917, to March 31, 1918, was 2,275,905 tons. The average daily output was 6,236 tons. Since the beginning of 1918 the average daily output has risen to about 8,500 tons.

The employees of the company number 232 officials; 218 subordinate officials; 1,978 Japanese laborers, 1,834 Chinese laborers. A total of 4,262 finding employment directly with the mines.

Oyama Pit

The following is a brief sketch of the Oyama mine:

(a) Shafts. Down cast, 21' in diam. brick lined 1,240' deep. Up cast 18' in diam. brick lined 1,240' deep. Fan drift of up cast, 12' wide, 15' high, sectional area 165 sq. ft. Distance between centers of two shafts 180'. Level of pit mouth 32' above railway. Level of coal stock yard 18' below pit mouth.

(b) Pit head frames. Frames for both down and up cast shaft are practically the same in shape. Lattice girder type, height 75' up to centers of pulleys. Pulleys 18' in diam. Up cast shaft has steel plate air boxing. Both frames have steel gallows and roofings.

(c) Cages. For down cast, single deck to carry four coal tubs, with balance rope underneath cages. For up cast, single deck to carry two tubs, no balance rope used. All cages have tilting bottoms and those for up cast have side plated. Tubs, steel, length of body 4' 0"; width of body 3' 2"; height of body 2' 0"; diam. of wheels on tread 12"; distance between centers of wheels 18"; cubic measure 25 cu. ft; coal contents 12 cwt.; gauge of tramway 24"; rails, weight per yard 24 lbs.

(d) Guides. Rope guides, four ropes for each cage. Sizes 4" circum. for down and 3½" for upcast cage.

(e) Keps. Beien's patent.

(f) Detaching hooks. Ormerod's patent.

(g) Screening plant of capacity to screen and pick in 16 hours, 3,168 tons of coal (2,304 tons from down cast, 864 tons from up cast); 3 tiplers for Marcus screens; 1 Marcus screen, 76'×4'6"; 1 Marcus screen, 62'×4'6"; 1 Marcus screen, 48'×4'6"; each fitted with 20' of ¾" square perforations for small coal, 12' of 1¼" square perforations for nut coal. Each screen treats 70 tons per hour.

Steel plates provided for covering either ¾" or 1¼" perforations. 3 Marcus conveyors for lump coal, each 70'×4'6", each fitted with 2'6" square perforations at the delivery end. 3 deflecting belt loading jibs for above, each 24'×4'6". 1 plate belt with deflecting jibs for nut coal, 95'×4'6". 1 elevator for bunker coal, 30'×18". 1 creeper for upcast empty tubs 90' long. 1 creeper for downcast empty tubs 70' long. 5 automatic greasers for tubs. 2 tipplers for tipping stock coal. 2 Marcus conveyors each 200' long, each to convey 32 tons of coal per hour for stock. Coal can be deposited at intervals of 6' by opening doors. Screen house, gantries and other structures steel.

Induction motors (3 phase, 60 cycles, 220 volts) for driving screens etc., are—

4-30 H.P. and 4-20 H.P. motors for screening plant; 1-10 H.P. motor for stock coal tipplers; 2-30 H.P. motors for stock coal conveyors. Inclination of tramways 1 in 40 on an average. Maker:—Head, Wrightson & Co., England.

(h) Winding Engines. For downcast, maximum load 10 tons including cage, loaded tubs, rope, detaching hook, etc. Time of one wind, —1 min. including banking. Quantity of coal in one wind,—2 tons 8 cwt. Max. quantity of coal to be raised in 8 hours 1,152 tons. Steam pressure 160 lbs. at boilers. Cross compound Corliss engine. High pressure cylinder 25"; low pressure cylinder, 41"; stroke 54"; parallel drum 14'× 11'6"; winding rope, in circum. 5"; cylinders steam jacketed.

Fitted with steam reversing gear. Reheater receiver; Whitmore brake engine, controller and overwind preventing gear; speed governor, depth indicator; splash steel plate for drum; 12½ ton overhead traveling hand crane, by Fraser & Chalmers, Ltd., England. For up cast, maximum load 6 tons. Time of one wind, 1 min. including banking. Quantity of coal in one wind, 1 ton 4 cwt. max. quantity of coal to be raised in 8 hours 516 tons. Duplex Corliss Engine. Cylinders 18"; stroke 48"; parallel drum 10'×8'; 5 ton overhead traveling hand crane.

All other conditions and fittings are the same as the engine for down cast.

Maker:—Fraser & Chalmers, Ltd.

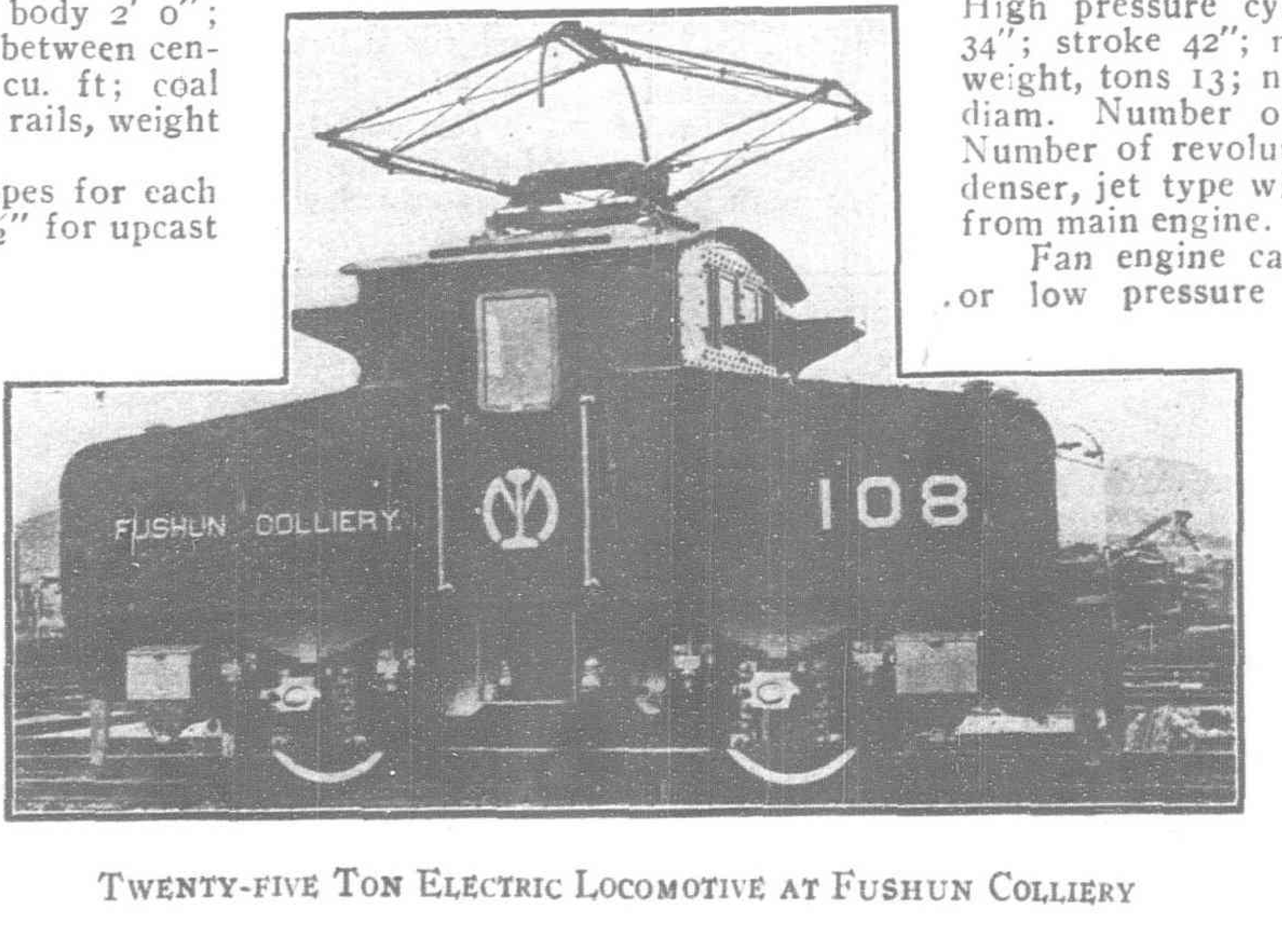
(i) Fan Engine. Capacity to exhaust 300,000 cu. ft. of air per minute with a water gauge of 6". Walker's indestructible fan with antivibration shutter. Fan. Diam. 18', width 7'.

Driving engine. Cross compound Corliss engine. High pressure cylinder 17"; low pressure cylinder 34"; stroke 42"; rope pulley, diam. 16'; rope pulley weight, tons 13; number of ropes 11, each 1¾" in diam. Number of revolutions of fan 170 per min. Number of revolutions of engine 70 per min. Condenser, jet type with vertical air pump driven direct from main engine.

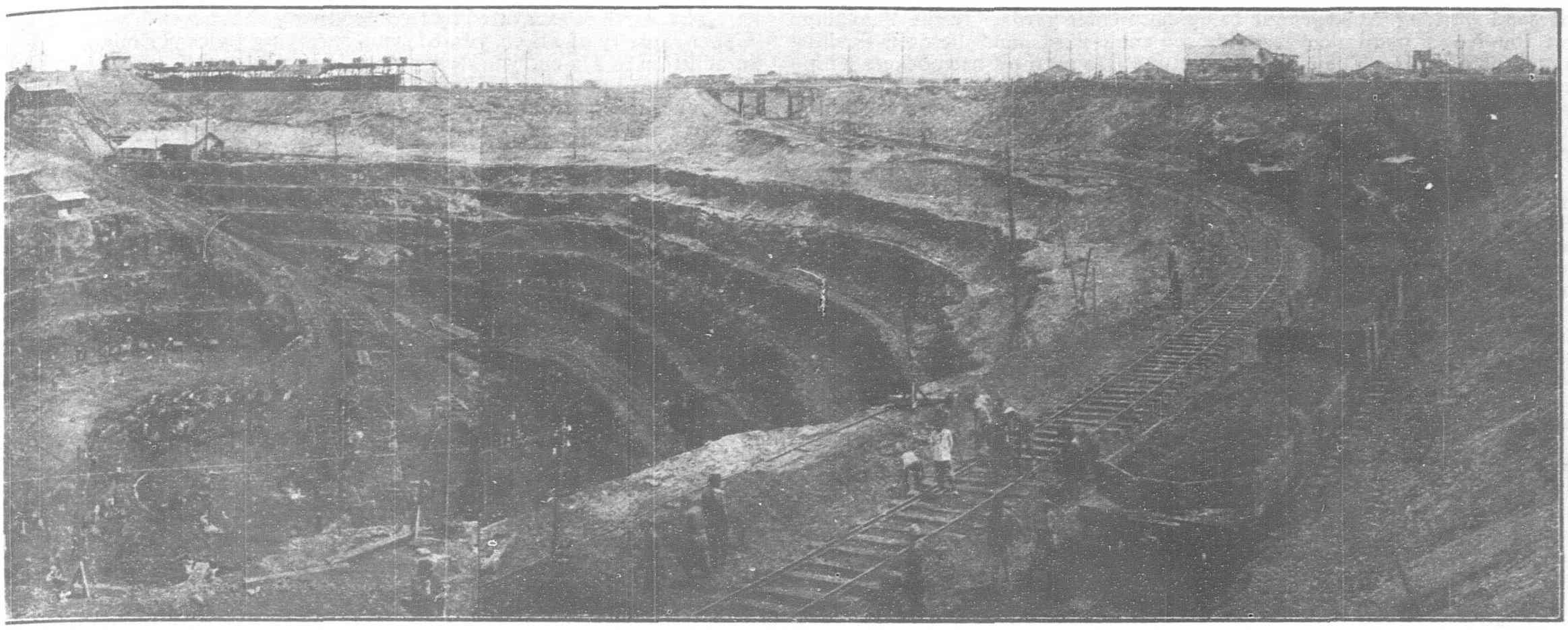
Fan engine can be run with either high pressure or low pressure cylinder independently. Has an arrangement to be capable of exhausting or blowing air into the mine. Maker:—Walker Brothers, England.

(j) Central power plant. Is situated close by the Oyama Pit and supplies electric power to surface and underground machinery of Oyama, Togo, Chienchintsai and other pits, central workshops and waterworks and also for lighting. Current, three phase, 60 cycles, 2,200 volts.

Generators. 2-500 K. W. and 2-1,000 K. W. C. A. Parson's Turbo-alternators with direct



TWENTY-FIVE TON ELECTRIC LOCOMOTIVE AT FUSHUN COLLIERY



Fushun Colliery, Manchuria

coupled exciters. All of fourpole type. Revolutions, 1,800 per min.

Each fitted with horizontal surface condenser having electric vacuum pump, circulating and lift pumps and vacuum augmenter.

Switchboard for generators, feeder panels, etc., complete. 10 ton overhead traveling hand crane provided.

Cooling pond for condensing water, 3½ acres in area and contains 120,000,000 cu. ft. of water. Water pipes between pond and power house 22″ in diam.

Boilers. 7 Babcock & Wilcox boilers each having heating surface of 4020 sq. ft. and evaporating power of 12,300 lbs. of steam per hour.

Steam supplied also to winding and fan engines. Strokers Babcock & Wilcox chain-grate stokers driven by 2 engines each 5½″ diam. by 5″ stroke. Area of stoker 74.8 sq. ft. Velocity 7′-24′ per hour.

Superheater (integral with boilers) to superheat the steam by 100–120 F. Superheating area of one set 569 sq. ft. Number of pipes 64 each 1½″ in diam. 3 feed pumps, duplex Worthington having steam cyl., 10″, stroke 10″, plunger 6″. 1 Worthington hot water meter with 4″ pipe.

Green's economizers. 4 sets each consisting of 240 tubes 9′ long $4^{9}/_{16}''$ in diam. Heating surface 10,300 sq. ft. Scraper driving engine 5″×10″.

Chimney.—Inside diam. at top 10′; height 150′; have inside core up to 93′.

Togo Pit

The general arrangement of this pit is similar to that of Oyama, the only points of difference being as stated below:

(a) Pit head frames. Lattice Girder 100′ up to the centers of pulleys. Banking level is 28′ above the pit mouth.

(b) Fan engine. Rateau fan. Diam. 4 meters (13.2 ft.). Exhaust casing 26′ high. Capacity, to exhaust 300,000 cu. ft. of air per min. with a water gauge of 6″.

Driving Engine. Cross compound with Collmann's valve. High pressure cylinder 500 m/m=19.7″; low pressure cylinder 800 m/m=31.5″; stroke pressure cylinder, 900 m/m=35.45″; rope pulley fly wheel, 4.5 m=14.76 ft.; number of ropes 10, each 2″ in diam. Number of revolutions of fan 175 per min. Number of revolutions of engine 99 per min. Condenser jet type driven direct from main engine. Fan engine has arrangements to run either high pressure or low pressure engine independently.

(c) Boilers. 4 Babcock & Wilcox boilers each of the same capacity as that of Oyama pit with chain-grate stokers. 2 feed pumps, Weir's simplex. Steam cyl. 10½″, stroke 24″, plunger 8″. 1 Worthington hot water meter. 2 sets of Green's economizers, each consisting of 240 tubes.

The main office and stores are at Chienchintsai and consist of many brick buildings.

The machine shop, blacksmiths' shop, foundry and carpenters' shop are at Chienchintsai. Total area of these buildings is nearly one acre.

The brick factory has the capacity of turning out 20,000 bricks per day.

Waterworks.—On the bank of the Hunho River, about a mile out of Chienchintsai, a large well is sunk and the clear water collecting there through natural filtration is raised to the reservoir at the south of Oyama pit by electric pumps. Capacity is 100 cu. ft. per min.

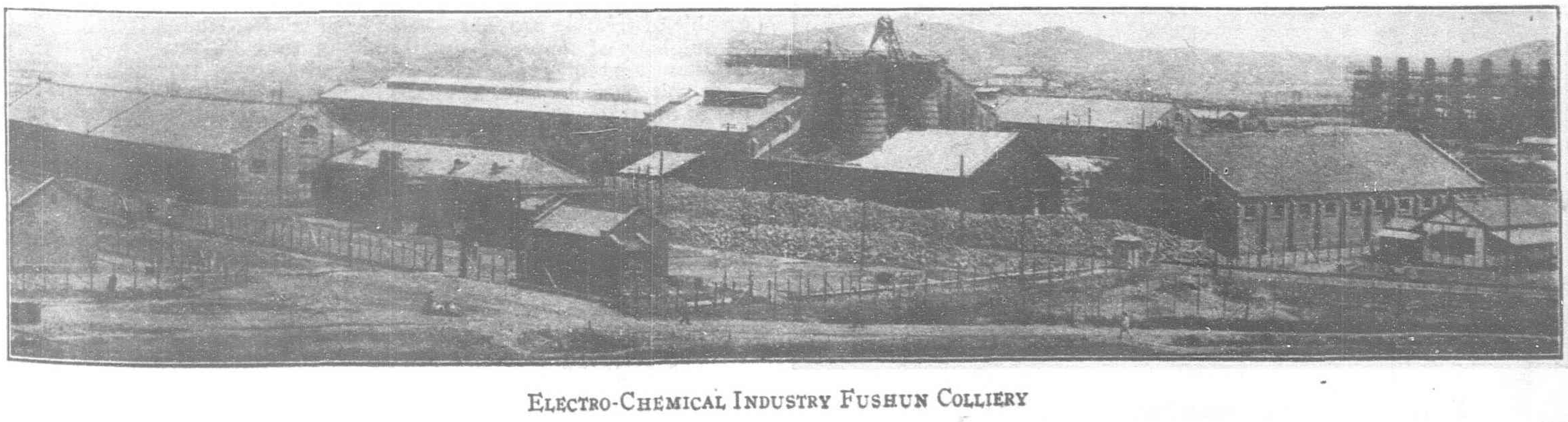
Electric light. All buildings, streets, and residences are lighted by electric lamps, current being supplied from the central power house.

Gas works. Gas is supplied to all houses for cooking use. The capacity of the works is 50,000 cu. ft. per day and can be increased up to 100,000 cu. ft. by only adding two retort furnaces.

It will be remembered that it was in the Oyama pit that a serious explosion involving the loss of over 900 lives took place the winter before last. Work has been resumed in the mine and at present some 670 tons per day are being produced. This is about half the quantity mined before the disaster. The explosion was due, according to Dr. S. Yonekura, the chief engineer and superintendent of the collieries, to an "explosion of coal dust," there being little gas in the workings. Steps have been taken to prevent a repetition by the introduction of sand and crushed stone treatment.

Sand-flushing Process

The sand-flushing system adopted after the explosion forms one of the most important auxiliary features of the collieries. Without it it would be technically impossible to tap 30 per cent of the immense coal hoard. As it is, as much as 70 per cent, at a conservative estimate, will become exploitable. The value of the extra profit accruing from the use of sand-flushing is estimated at Yen 329,000,000, at the rate of Yen 1 per ton in net profit for the coal output. The first plant for this work was installed in the Yangpaipu pit in 1912, and in 1913 a similar plant was installed in the Oyama pit. These plants were partly experimental. They proved the value of the system and in 1913 flushing shafts were sunk both at the Oyama and Togo pits, sand pockets being constructed during the next fiscal year, and the whole put in operation in 1915. In 1918 a plant was placed in the Laohutai pit. A second plant is now being put in both the Laohuti and Yangpaipu pits and a first plant has been installed in the Wantawu and Cheneninchai pits. In the Oyama and Togo pits the capacity of the sand pockets is 3,200 cubic yards each, the daily quantity



Electro-Chemical Industry Fushun Colliery of sand flushing underground being 4,000 cubic yards. In the Yangpaipu pit the No. 1 plant pocket holds 400 cubic yards, and the daily flushing 1,200 cubic yards. The No. 1 plant in the Laohutai pit has pockets with a capacity of 1,600 cubic yards, and a daily flushing capacity of 1,200 cubic yards. As a result of the sand flushing 1,277,247 tons of coal were mined, at the rate of 6.79 tons of coal to one cubic foot of sand, during the fiscal year 1916.

The transportation of sand is in itself a work of some magnitude, especially as the sand for use in winter months has to be gathered before freezing sets in. The sand is obtained on the Hun and Yangpaipu rivers. Two drag line excavators, six steam shovels, two small revolving shovels and one large revolving shovel are being used at the various sand beds. Three other steam shovels are in course of erection.

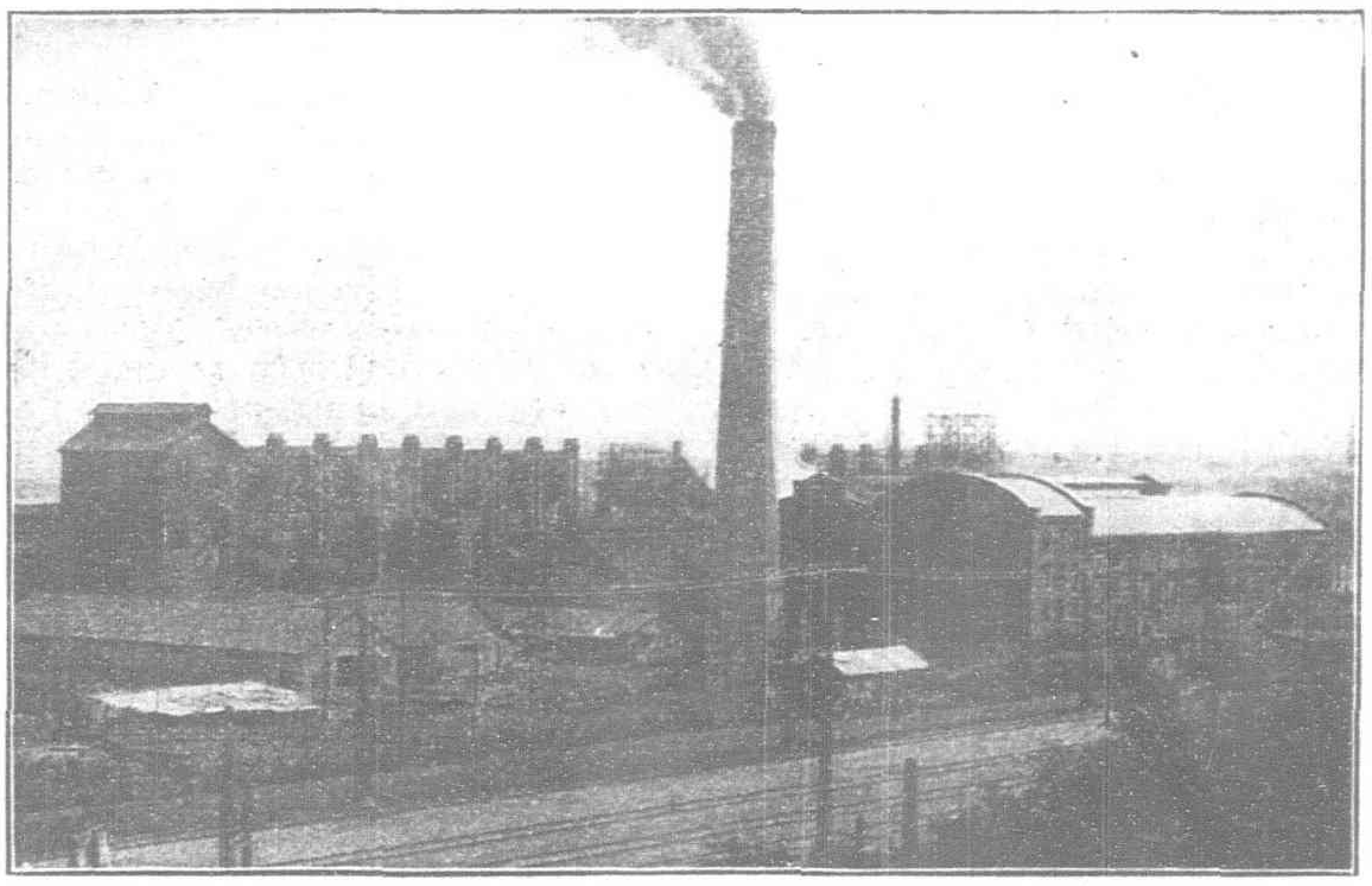
The aspects dominating the future working of Fushun are two, the sand flushing and the open working. By use of the former the deeper layers are tapped, and by the latter the surface seams are worked.

The Open Cast

The open workings are among the most impressive sights to the layman. The coal at Fushun lies in upper and nether seams. The latter remain untouched. The former are under operation.

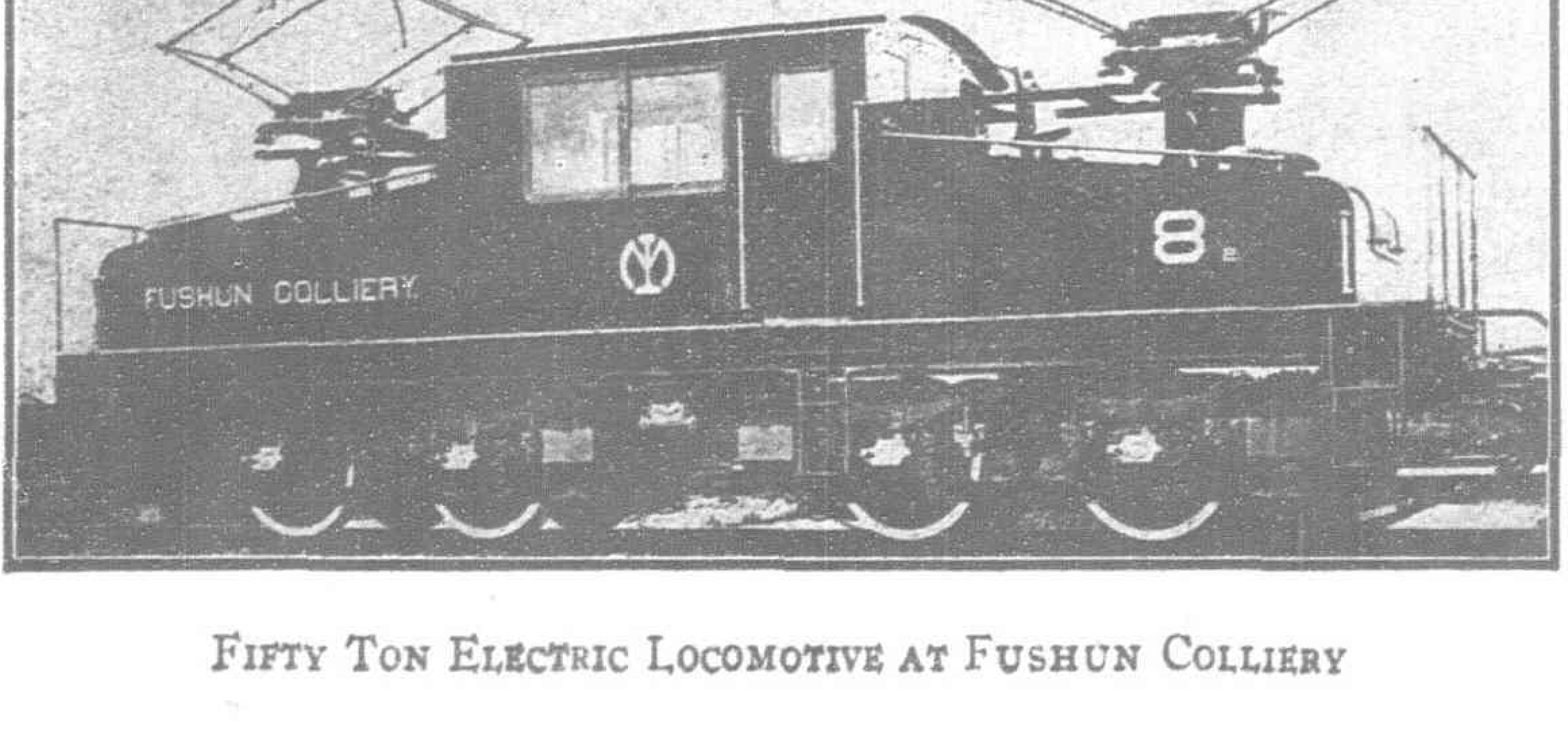
The open working zone, part of which is shown in the illustrations of this article, is located on both sides of the railway track of the Fushun branch line. The seam ranges in thickness from 50 to 200 feet. The area laid out for open working calls for the excavation of earth and sand, shale, 6,000,000 tons of coal, 1,600,000 tons of raw coal, and coal shale; in all some 2,600,000 cubic feet. Raw coal is used at the water gas producer factory, and the earth and sand are used in the sand-flushing process. The sandy strata covering the coal is some 40 feet thick.

Open working was decided upon, after exhaustive prospecting, in March, 1914, and stripping work was commenced in April. In 52 days the coal seam was reached, and coal was produced in January, 1915. The coal won by July 31 amounted to 367,418 tons, and the raw coal, 153,504 tons. Tiers of steps are constructed all round the open cut, each bench being twelve feet high. There are at present twelve benches, and the lowest depth reached in this form of mining is 184 feet. About 200 lbs. of black powder are used daily in blasting. Holes are dug either with boring machines or crowbars. After the blast is fired the disturbed material is broken up with pick-axes. The material is taken out of the cut in 150 coal tubs and four locomotives of the prairie switcher type hauled up an incline by wire cable. There are two winding engines of 100 H.P., and one of 300 H.P.



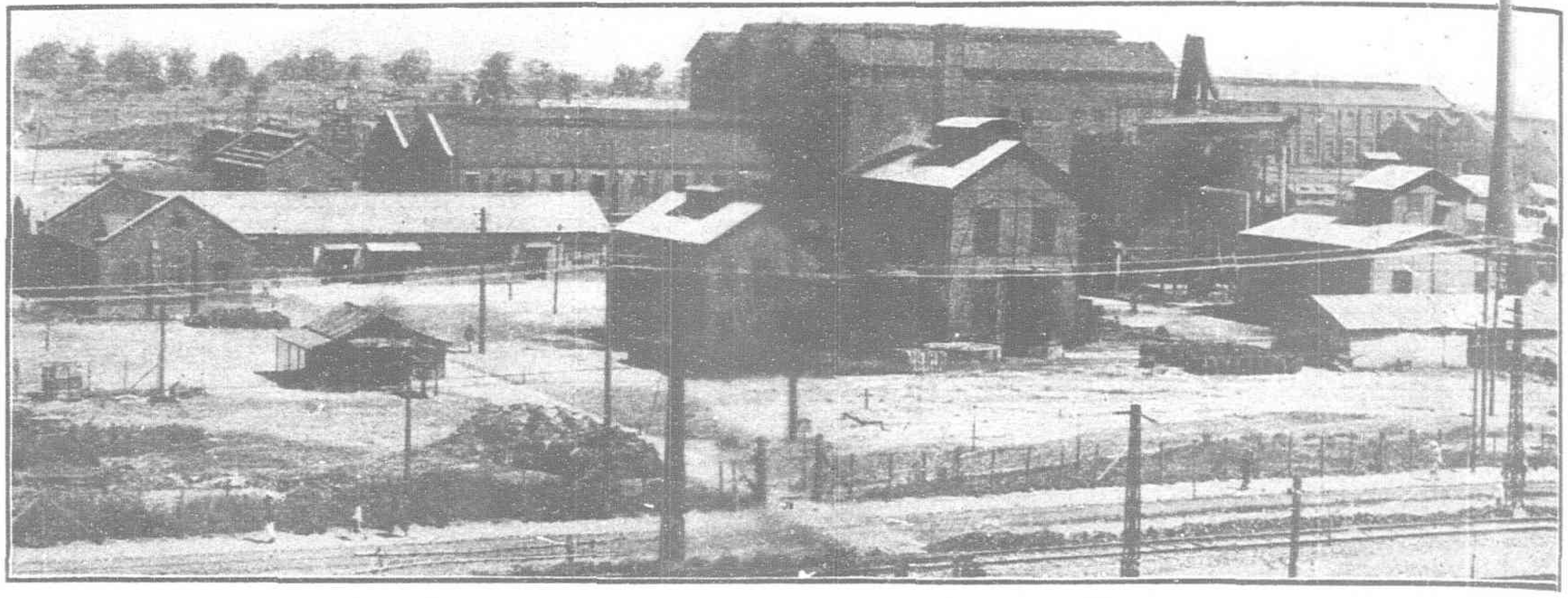
Gas Producer Factory, Fushun Colliery

Mining operations are being gradually extended downward and southward. The staff engaged in these operations consists of 11 officials, 85 Japanese, 131 Chinese, 525 regular coolies and 1,520 coolies temporarily hired. The natural flow of water from the sand is 120 cubic feet per second, and from the coal 30 cubic feet per second. This is dealt with by three electrical centrifugal pumps capable of lifting 300 cubic feet of water per minute, two 50 cubic feet pumps, and three 5 cubic feet pumps.



Fifty Ton Electric Locomotive at Fushun Colliery

The earth is excavated by two revolving shovels each with a dipper capacity of 2½ cu. yds. of sand, revolving twice per minute, in addition to 2½ cu. yd. steam shovels revolving 2½ times per minute and one five-eighths cu. yd. steam shovel. The present daily output is 900 tons good coal, 300 tons raw coal, 350 cubic tsubo of earth and sand, in addition to 100 cu. ft. of water pumped.



Coke Oven and Sulphuric Acid Factory, Fushun, Manchuria

Company Administration

In order to secure greater efficiency in the working of the company's properties reorganization was recently effected to place the collieries, the Anshan Steel Works, the coal sales section, the mining section, and the geological institute, under one head. They have therefore been placed under Mr. S. Kabayama, Director of the Mining Department, who also has the direction of the Mond gas producer factory, the sulphate of ammonia factory, and the coke ovens, etc.

Mond Gas Producer Plant

To utilize the great quantity of unmarketable coal present at the mines it was decided to install a Mond gas producer plant and make gas and recover ammonia at the same time. Power is thus developed, and, at the same time by-products, the power being used for mining operations, illumination, and electrochemical purposes. The sulphate of ammonia is utilized largely in Japan for rice, wheat, barley, mulberry, and other fertilization purposes, and in the South Sea Islands on the sugar plantations. The tar produced is used in many ways, as pitch and tar oil, and a special disinfectant named neo-creoline is manufactured.

Ten gas producers have been installed and these produce gas which is used in a Babcock and Wilcox tubular boiler for the operation of a steam turbine in electrical generation by means of a Curtiss turbo-alternator.

No. 1 Power Station is equipped with ten boilers, with a heating area of 4,020 square feet, fitted with chain grate stokers and economizers; five three phase alternating current generators; two Pearson's steam turbines, direct couple 2,200 volt, 60 cycle, 500 kilowatts; one similar plant 1,000 kilowatts, and two 1,500 kilowatts each. No. 2 Power Station contains eight Babcock and Wilcox boilers with a heating area of 4,020 square feet, equipped with gas burners, one having a tar burner so that either gas or tar may be used; ten gas generators with byproduct recovery appliances capable of treating 240 tons of coal in 24 hours, yielding from 9 to 10 tons of sulphate of ammonia and about 12 tons of tar; two three phase alternate current generators; two Curtiss steam turbines direct couple 2,200 volt, 60 cycle, 1,500 kilowatts; three direct current generators for the use of the tramway service, 2,200 volt, 750 horsepower synchronous motor direct couple, 1,200 volt, 400 kilowatts.

Proposed additions to this plant are estimated to increase the power by 9,000 kilowatts, giving the collieries some 16,500 kilowatts per hour. At the same time the output of ammonia will be raised to 30 tons per day.

Electricity for motor power can be supplied at Fushun at a cost of half a sen for 1 kw. per hour. At other places on the S. M. R. line 1 kw. costs 25 sen, and at Tokyo from 2 to 3 sen.

Sulphuric Acid Factory

The company also maintains a sulphuric acid factory. Two sets of machinery are installed capable of producing 25 tons of Chamber acid, and this plant is to be doubled.

Coke Oven Plant

The coke ovens were opened for work in April, 1914, to supply coke for the manufacture of carbide by the Electro-Chemical Industry Co. The plant is equipped with five vertical coke ovens of the Elliott Jones type, with a total charging capacity of 50 tons of coal, and a production of 32.5 tons of coke per day; one ammonia absorber capable of producing three quarters of a ton of sulphate of ammonia per day; one tar distillator capable of holding ten tons. About twelve horizontal ovens of the Kopper's system are in course of installation.

For the completion of the extension plans for the Mond gas power station, the sulphuric acid factory and the coke ovens the sum of about Yen 5,000,000 is required.

At present the total quantity of coal used is 1,000 about tons daily, of which 750 tons are for the gas power station.

The Electro-Chemical Industry

The electro-chemical works at Fushun has so far been engaged in the manufacture of cyanamide and of sulphate of ammonia from cyanamide. Limestone is found in abundance at Hualienchai, on the Mukden-Antung Railway, whence it is transported to the kilns at the mines, and is there treated. About eleven tons of sulphate of ammonia are produced daily, though the original plan was to produce fifty tons per day. *This development was prevented owing to delays in the delivery of* plant to extend the water gas producer installation. The supply of power by the gas producer plant is limited and only three sets of electrical furnaces are now in use. In due course five more will be set up. Before the war sulphate of ammonia was quoted in Japan at Yen 120 and Yen 130 per ton, but that price has been trebled on account of the war. The product of the Fushun works is purchased at the kilns by public tender, and is shipped to Japan for fertilizer purposes.

Zinc Refining

The war has also developed zinc refining at Fushun and by next August it is expected to have a plant running.

Another Link Between Korean and Chinese Railways

A Line from Kirin to Hweining to Be Built

On June 18 a preliminary agreement was signed between the Chinese Ministry of Communications and a group of three Japanese Banks (the Hsin Yeh Bank, the Bank of Chosen, and the Bank of Formosa), represented by the Hsin Yeh Bank, for the construction of the projected railway between Kirin and Hweining on the Korean frontier.

The terms of the contract are reported to be as follow:

(1) Amount of the loan, $20,000,000.

(2) Use, for construction of the Kirin-Hweining railway.

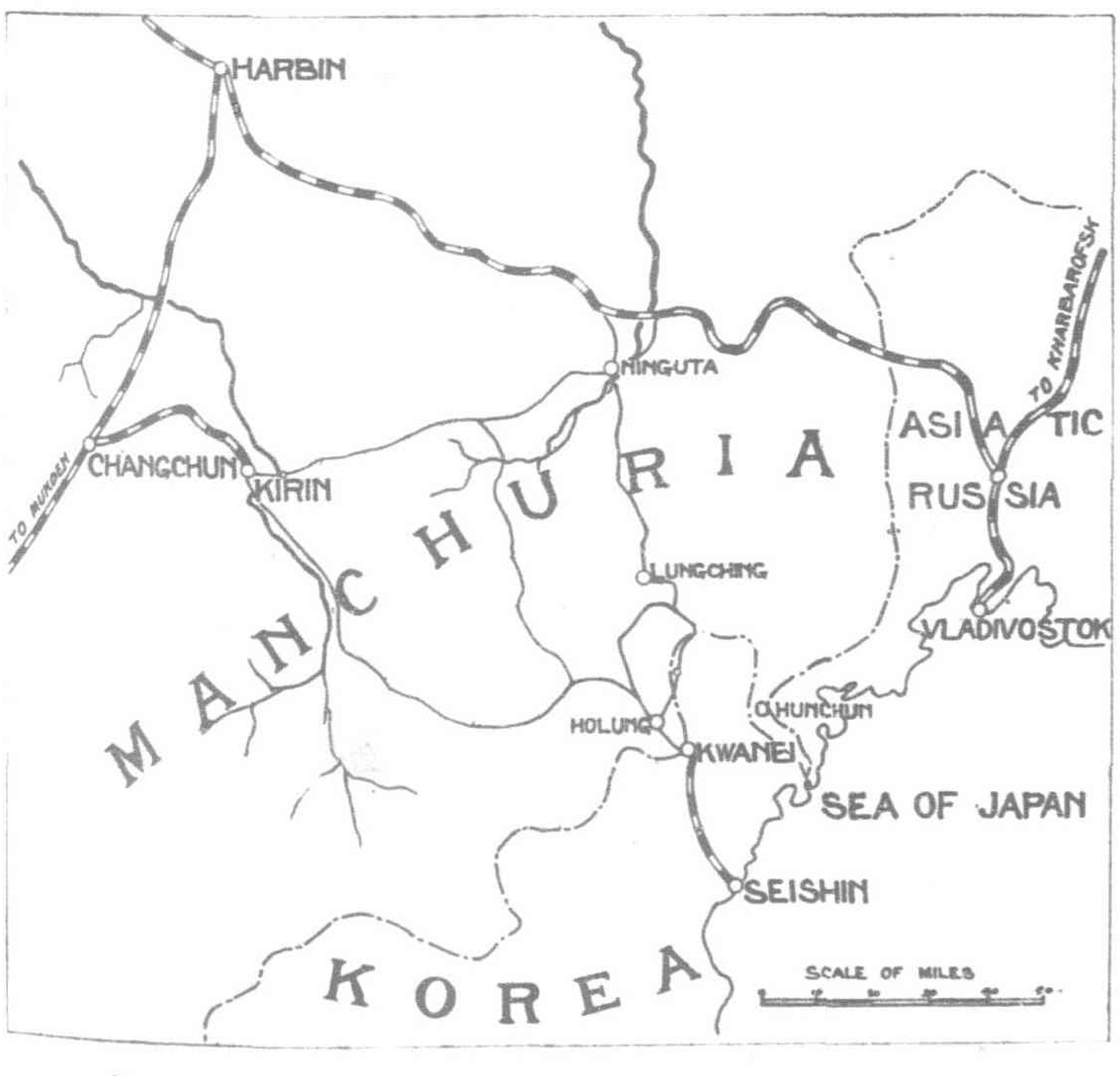
(3) The loan to be floated in the form of public bonds which are to be issued through the Bank of Chosen, the Bank of Formosa, and the Hsin Yeh Bank.

(4) Interest to be 5% per annum.

(5) Security, the property and income of the projected railway.

(6) Time limit for repayment, forty years.

(7) Funds required for the erection of a steel bridge over the Tumen River to connect the proposed line with the Korean railway system to be equally subscribed by the Chinese and the Japanese Government.



The New Line Will Eventually Effect a Connection Between Kirin and Kwanei

A most important point—the rate of discount—has not been made public.

An advance of $10,000,000 was paid after the signing of the preliminary agreement. Negotiations with regard to the final construction contract will shortly be commenced.

This railway is the logical development of the recent opening of the light line from Seishin, on the Korean seacoast, and the Korean side of the Tumen River at Hweining, and its possibility was referred to in the February issue of the Review. When built it will have a decided effect in commercially developing the section of Manchuria through which it will pass. Hitherto freight from the vicinity of Kirin had to be hauled by rail all the way to Dalny or to Fusan. The projected line will take it a short cut direct to the sea, and this simple connection is destined to have an important effect on the whole situation in northern Manchuria in the future—probably in more ways than one. A glance at the sketch which we reprint from the February issue will show the connection, and will inspire thought, when the politics, international and otherwise, which are interwoven with the affairs of this territory are remembered.

The construction of the projected railway by Japanese interests was arranged in the agreement signed between China and Japan at Peking on September 4, 1909, to settle the questions regarding the China-Korean boundary. Article 6 of that document states:

> The Government of China shall undertake to extend the Kirin-Changchun Railway to the southern boundary of Yenchai, and to connect it at Hoiryong with a Korean railway, and such extension shall be effected upon the same terms as the Kirin-Changchun Railway. The date of commencing the work of the proposed extension will be determined by the Government of China considering the actual requirements of the situation and upon consultation with the Government of Japan.

Since this treaty was written a change has been made in the management of the Kirin-Changchun Railway. It was then managed by the Chinese. On October 12, 1917, an agreement was entered into between the Chinese Government and the Yokohama Specie Bank for a loan of Yen 6,500,000, with the Kirin-Changchun Railway as security. This agreement placed the administration of the railway in the hands of the South Manchuria Railway Company, which organization is to receive two per cent of the net profits for its services. The new line when constructed will be managed by the South Manchuria Railway Company, which already operates the Korean lines. The whole railway system involved will then be under the control of one management and will benefit accordingly.

Chinese Railway Reports

Peking-Mukden Line in 1917

The general report of the Managing Director (Mr. Chu Kin-how) and the Assistant Director (Mr. Cheng Hung-lien) just issued states: The year 1917 has given us the largest carnings and net earnings ever recorded on this line and indicate that with a judicious increase to the present facilities and rolling stock much expansion may yet be anticipated in the earning power of the railway.

The difficulties under which much of the general business of the country was done during the year 1916, as shown in the report for that year, still continued to hamper trade during the year under review. The Moratorium has not yet been withdrawn. Shortage of ocean going steamer tonnage is still keenly felt while silver exchange soared to the highest level reached for 39 years. Tientsin and district suffered severely from floods in the autumn. To meet the requirements of the Ministry of War for military transportation, several hundreds of our cars were taken and employed on other lines for long periods and in consequence, especially in the autumn, we suffered an acute car shortage. But for this latter handicap the results of this year's working would have been much greater than those actually realized.

Compared with the previous year, the results obtained were as follow:

	1916	1917		Difference
Total Operating Revenue	$14,809,724.11	$16,996,642.09	+	$2,186,917.98
Total Operating Expenses	5,953.575.85	6.529,967.69	+	576,391.84
Balance, Net Revenue	8,856,148.26	10,466,674.40	+	1,610,526.14
Ratio of Operating Expenses to Revenue	40.32 %	38.42 %	—	1.9 %

Mileage.—There has been no increase in main line mileage, which stands at 526.139 miles.

A new branch line of 6.046 miles has been opened to Peitaiho beach increasing the branch line mileage to 79.595 miles.

This branch is only operated during the summer season.

Exchange.—The remarkable rise in the price of silver has permitted us to make the monthly remittances to London to meet the loan service at an average rate of 4/0⅜ per Tientsin Tael, a rate which means a very large saving over previous years.

Loans.—The loan service has been promptly met.

Coal Traffic.—The coal traffic from Tangshan and district is rapidly expanding and for 1917 reached the large total of 2,822,915 tons.

It has been realized, for some years past that, in order to cope with this increasing business, the railway facilities would also require to be enlarged. Much has already been done towards this end, since the commencement of the European War, and in spite of the great difficulty *in obtaining the requisite material. The expenditures of the railway,* since the autumn of 1914, on improvements calculated to facilitate the expenditious handling of this coal business have been as follow:

Diversion of main line from Peitaiho to Chinwangtao	$1,026,000
Reconstruction of Kuyeh station yard	72,000
Reconstruction of Kaiping station yard	61,000
30% cost of relaying Kuyeh to Peitaiho section with 80 lb. rails	368,000
30% cost of relaying Chinwangtao to Shanhaikwan section with 80 lb. rails	32,000
Pei-chia-tien, cost of new crossing station	16,000
Improvements to various station yards and crossing stations	41,000
Strengthening bridge near Tongshan	6,000
Share of cost of new rolling stock	385,000
	$2,007,000

It will thus be seen what substantial encouragement the railway *administration has already given toward the development of this* important industry. In addition a considerable increase in motive power has been contracted for to be delivered early in 1919.

Staff.—The Directors take this opportunity to thank the staff for their loyal support throughout a very busy season.

Operating Revenues

Percentage on Total Operating Revenues	Year Ending December 31, 1916.	Operating Revenues	Year Ending December 31, 1917.
	$14,544,446.09	TRANSPORTATION REVENUE	$16,746,745.18
42.09	$6,215,460.50	Passenger Service—Passengers	$6,816,388.02
3.03	447,959.64	Passenger Service—Other	437,493.08
51.95	7,670,444.88	Goods Service—Goods	9,299,285 18
1.41	208,653.02	Goods Service—Other	191,945.10
.01	1,928.05	Ferry Service	1,633 80
	215,399.15	OTHER OPERATING REVENUES	209,461.49
.05	6,909.75	Telegraph	19,565.27
.01	1.453.41	Profits of Central Mechanical Works	5,744.98
.96	140,610.39	Rents	141,534.74
.45	66,425.61	Incidental Revenues	42,616.59
.04	4,648.26	AUXILIARY OPERATIONS	6,963.52
	45,230.60	INTERCHANGE OF ROLLING STOCK	33,471.90
100.	14,809,724.11	TOTAL OPERATING REVENUES	16,996,642.09
	$14,809,724.11	TOTAL	$16,996,642.09

Operating Expenses

Percentage on Total Operating Expenses	Percentage on Total Operating Revenues	Year Ending December 31, 1916.	Operating Expenses	Year Ending December 31, 1917.	Percentage on Total Operating Revenues
		$1,028,734.59	GENERAL EXPENSES	$1,257,204.39	
3 31	8.22	$489,685.88	Administration	$494,462.64	7.57
3.64	9 06	539.048.71	Special	762,741.75	11.68
5.23	13.	773,826.65	TRAFFIC EXPENSES	820,558.36	12 57
		1,571,727.42	RUNNING EXPENSES	1,630,666.29	
8.78	21.78	1,296,918.58	Locomotive	1,351,286.37	20.69
.53	1.34	79,699.16	Carriage & Wagon	87,940.06	1.35
		—	Motor Vehicles	—	
1.20	2.99	178,489.44	Traffic	177,116.74	2.71
.11	.28	16,620.24	Flotilla	14,323.12	.22
		1,299 364.22	MAINTENANCE OF EQUIPMENT	1.357,587.77	
8.78	21 79	1,297,148.24	Locomotive Department	1,356,351.21	20.77
.01	.04	2,215.98	Flotilla Department	1,236.56	.02
		1,279,922.97	MAINTENANCE OF WAY & STRUCTURES	1,463,950.88	
7.82	19.23	1,144,637.81	Engineering Department	1,347,675.36	20.64
.91	2.27	135,285.16	Other Departments	116,275.52	1.78
40.32	100.	5,953,575.85	TOTAL OPERATING EXPENSES	6,529,967.69	100.
		8,856,148.26	BALANCE NET REVENUE	10,465,674.40	
		$14,809.724.11	TOTAL	$16,996,642.09	

Other Operating Revenues

Percentage	Previous year		Current year
			$
.05	6,909.75	TELEGRAPH	19,565.27
.01	1,453.41	PROFIT OF CENTRAL MECHANICAL WORKS:	5,744.98
.96	140,610.39	RENTS	141,534.74

		66,425.61	INCIDENTAL REVENUE ...	42,616.50		.25
.45	1,500.00		1.—Advertising		2,274.00	
	20,809.68		2.—Station and train privileges		18,838.49	
	8.50		3.—Sales of unclaimed and confiscated goods		278.26	
	8,652.11		4.—Profits on stores transactions		12,564.30	
	35,455.32		5.—Miscellaneous... ...	35,455.32	8,661.45	
		215,399.16	TOTAL ...	$ 209,461.49		

Auxiliary Operations

		BALANCES OF ACCOUNTS AS UNDER:		
.04	4,648.26	Wharves	6,963.52	.04
	4,648.26	TOTAL... ... $	6,963.52	

General Balance Sheet

ASSETS OR DEBIT BALANCES

Balance at Beginning of Year $	Heads of Classification	Balance at Close of Year $	Increase	Decrease
	INVESTMENT ASSETS			
59,942,843.50	Cost of Road and Equipment	60,615,140.60	672,297.10	
467,730.61	Cost of other physical property	467,730.61		
57,002.80	Cost of non-physical assets	57,002.80		
60,467,576.91	TOTAL INVESTMENT ASSETS	61,139,874.01		
	WORKING ASSETS			
3,930,185.79	Cash	7,256,865.35	3,326,679.56	
	Silver dollars and subsidiary coins $56,853.00			
	Notes, Bank of Communications, Peking $620,693.00			
	Notes, Bank of China, Peking ... $3,839,293.00			
	Bank Accounts, London $221,471.44			
	Bank Accounts, Local ... $872,840.62			
	Deposit Receipts to secure loan services $1,645,714.29			
	$7,256,865.35			
	Traffic balances receivable			
	Government Railways			
1,010,850.32	Home Line	732,678.77		278,171.55
	Other accounts receivable			
4,688.18	Other Railways ...			4,688.18
285,091.66	Sundry Debtors ...	607,160.32	322,068.66	
4,431,575.69	Stores	5,024,354.77	592,779.08	
9,662,391.64	TOTAL WORKING ASSETS	13,621,059.21		
	DEFERRED DEBIT ITEMS			
1,558,251.45	Temporary Advances to Government ...			1,558,251.45
	Payments Made in Advance	3,450.34	3,450.34	
2,125,200.00	Unextinguished Discounts on Funded Debt	2,049,300.00		75,900.00
23,897.90	Miscellaneous Deferred Debits ...	23,897.90		
3,707,349.35	TOTAL DEFERRED DEBITS	2,076,648.24		
$73,837,317.90	GRAND TOTAL ...	$ 76,837,581.46		

Tientsin, March 23, 1918.

Liabilities or Credit Balances

	CAPITAL LIABILITIES			
26,142.85	Shares	26,142.85		
23,903,392.57	Permanent Government Investments...	23,903,392.57		
19,550,473.86	Mortgage Bonds ...	18,839,523.83		710,950.03
43,480,009.28	TOTAL CAPITAL LIABILITIES	42,769,059.25		
	WORKING LIABILITIES			
549,733.74	Loan			549,733.74
	Traffic Balances Payable:			
	Government Railways			
35,474.68	Private Companies ...	8,505.13		26,969.55
207,006.82	Matured Liabilities Unpaid	221,952.95	14,946.13	
	Other Accounts Payable			
	Other Railways ...			
190,738.68	Sundry Creditors ...	260,452.31	69,713.63	
982,953.92	TOTAL WORKING LIABILITIES	490,910.39		
	DEFERRED CREDIT ITEMS			
1,691,415.47	Temporary Advances from Government	891,415.47		800,000.00
6,731,480.43	Depreciation Reserve	6,873,265.44	141,785.01	
131.96	Miscellaneous Deferred Credits ...	25,023.10	24,891.14	
8,423,027.86	TOTAL DEFERRED CREDITS	7,789,704.01		
	BALANCE ACCUMULATED SURPLUS			
11,166,657.28	Additions to Property Through Surplus ...	11,838,954.38	672,297.10	
9,784,669.56	Funded Debt Retired Through Surplus ...	10,495,621.94	710,952.38	
	Free Surplus	3,453,331.49	3,453,331.49	
20,951,326.84	TOTAL ACCUMULATED SURPLUS	25,787,907.81		
$73,837,317.90	GRAND TOTAL	$ 76,837,581.46		

Wm. Henderson, C. A.
Chief Accountant

Peking-Suiyuan Railway

The Managing Director (Mr. W. S. Y. Tinge) and the Associate Managing Director (Mr. J. C. Ho) have issued the report of the operations of the Peking-Suiyuan Railway for 1916. The total length of this line is 603.613 kilometers, 428.752 kilometers being main line, 40.417 being branch lines, and 134.444 being industrial track and sidings.

Returns for 1917

The Peking-Suiyuan Railway was open to traffic in the year 1916 up to Fengchen, and at the same time the Round City Branch was also open to traffic. The construction of a branch line at Tatunghsien for the transportation of coal is now in progress. While the length of this line is being extended the operating revenue is automatically increasing.

The following table shows the increasing prosperity of the Railway:

Year	Operating Revenues	Cost of Road & Equipment	Line Operated in Chinese Li
1912	$2,591,710	$17,064,297	589
1913	3,281,488	19,018,399	642
1914	3,490,778	22,335,737	642
1915	3,613,493	25,557,600	746
1916	3,895,779	25,981,204	855
1917	3,716,155	26,334,987	855

Revenue decreased in 1917 owing to floods and troubles. In spite of the cessation of traffic caused by the measures taken for the prevention of plague during 1918, when the revenues were affected, the total amount of revenue derived up to April, when compared with the corresponding periods of the previous year, shows an increase by $192,907.00.

Year	January	February	March	April	Total
1917	$266,750	$298,473	$346,301	$300,076	$1,211,600
1918	182,276	266,527	509,010	446,694	1,404,507

Report of Operations for 1916

The Peking-Kalgan Line has long been open to traffic and the Changsui Line, though constructed as far as Fengchen, was (when the Directors took office) still in the construction period. In January, 1916, the Changsui Line was, in accordance with an order from the Ministry, amalgamated with the Peking-Kalgan Line, under the name of the Peking-Suiyuan Line, the revenues derived from the section between Kalgan and Fengchen being consequently credited to the revenue accounts.

The comparative figures given for the previous year, were obtained by adding the figures of Peking-Kalgan and Changsui lines together. The results of operation during 1916 compared with those in the corresponding period of the previous year showed the Operating Revenue in 1916 to be $3,895,779.37, and, in 1915, $3,574,364.64; the Operating Expenses in 1916 were $2,317,138.37, and in 1915, $1,917,373.88; the Net Revenue in 1916 was $1,578,641.00, and in 1915, $1,656,990.76. The ratio of Operating Expenses to Revenue was, in 1916, 59.48%, and, in 1915, 53.64%.

The Operating ratio in 1916 increased by 5.84% as compared with the previous year. The reasons are twofold:

(*a*) Before the consolidation of the Peking-Kalgan and Changsui lines, the "General Expenses" were distributed over both operating and construction accounts, while after the consolidation, the "General Expenses" were wholly allocated to operating account, as the construction account had been closed.

(*b*) In August, 1916, the section between Tatung and Fengchen and the Round City Branch Line were handed over to the Maintenance of Way Department, and the maintenance expenses were consequently increased.

The Main and Branch lines open to traffic measure 855.149 li.

Short Term Loans. The redemption of the second short term loan fell due in this year. The total amount to be redeemed including interest was $1,597,771.54. Subscription for the Third Short Term Loan was closed in March amounting to $1,421,150.00. One fourth of the amount of the loan was drawn for redemption respectively in September and December, the total amount to be redeemed for the two periods including interest being $718,061.30.

Assets or Debit Balances

BALANCE AT BEGINNING OF YEAR	HEADS OF CLASSIFICATION	BALANCE AT CLOSE OF YEAR	INCREASE	DECREASE
	B-5. INVESTMENT ASSETS			
$25,557,600.82	B-5-1. Cost of Road and Equipment	$25,981,204.68	$423,603.86	
	B-5-2. Cost of Other Physical Property			
92,162.04	B-5-3. Cost of Non-Physical Assets	119,177.04	27,015.00	
25,649,762.86	TOTAL INVESTMENT ASSETS	26,100,381.72	450,618.86	
	B-6. WORKING ASSETS			
76,256.33	B-6-1. Cash	427,411.95	351,155.62	
	B-6-2. Loans and Bills of Exchange			
	B-6-3. Traffic Balances Receivable			
5,695.27	B-6-3-1. Government Railway	21,933.49	16,238.22	
35.92	B-6-3-2. Private Companies	544.50	508.58	
311,594.40	B-6-3-3. Home Line	386,262.34	74,667.94	
	B-6-4. Other Accounts Receivable			
821,431.82	B-6-4-1. Other Railways			$821,431.82
24,594.11	B 6-4-2. Sundry Debtors	8,825.23		15,768.88
1,268,824.40	B-6-5. Stores	1,296,922.01	28,097.61	
2,508,432.25	TOTAL WORKING ASSETS	2,141,899.52		366,532.73
	B-7. DEFERRED DEBIT ITEMS			
	B-7-1. Temporary Advances to Government	233,307.99	233,307.99	
47,133.83	B-7-2. Payments Made in Advance	55,874.18	8,740.35	
	B-7-3. Unextinguished Discounts on Funded Debt			
	B-7-4. Abandoned Property not Charged off			
609,130.44	B-7-5. Special Funds	160,000.00		449,130.44
780,814.81	B-7-6. Miscellaneous Deferred Debits	1,341,755.87	560,941.06	
1,437,079.08	TOTAL DEFERRED DEBITS	1,790,938.04	353,858.96	
	B-8. BALANCE OR ACCUMULATED DEFICIT			
29,595,274.19	GRAND TOTAL	$30,033,219.28		

Liabilities or Credit Balances

Balance at Beginning of Year	Heads of Classification	Balance at Close of Year	Increase	Decrease
	B-1. CAPITAL LIABILITIES			
—	B-1-1. Shares	—		
—	B-1-2. Premium on Shares	—		
$21,669,666.72	B-1-3. Permanent Government Investments	$22,662,737.06	$ 993,070.34	
—	B-1-4. Mortgage Bonds	—		
1,892,570.00	B-1-5. Other secured indebtedness	—		1,892,570.00
23,562,236.72	TOTAL CAPITAL LIABILITIES	22,662,737.06		899,499.66
	B-2. WORKING LIABILITIES			
—	B-2-1. Loans and Bills of Exchange	1,444,718.60	1,444,718.60	
	B-2-2. Traffic balances payable:			
5,139.85	B-2-2-1. Government Railways	44,788.29	39,648.44	
12.98	B-2-2-2. Private Companies	13.92	.94	
—	B-2-3. Matured liabilities unpaid	122,467.66	122,467.66	
	B-2-4. Other Accounts Payable			
823,016.25	B-2-4-1. Other Railways	—		823,016.2
847,312.34	B-2-4-2. Sundry Creditors	625,233.58		222,078.7
1,675,481.42	TOTAL WORKING LIABILITIES	2,237,222.05	561,740.63	
	B-3. DEFERRED CREDIT ITEMS			
—	B-3-1. Temporary Advances from Government	—		
—	B-3-2. Operating Reserves	—		
908,077.33	B-3-3. Depreciation Reserves	1,146,517.99	238,440.66	
—	B-3-4. Liability on account of Provident Funds	—		
13,246.48	B-3-5. Miscellaneous deferred credits	44,877.92	31,631.44	
921,323.81	TOTAL DEFERRED CREDITS	1,191,395.91	270,072.10	
	B-4. BALANCE, ACCUMULATED SURPLUS			
1,998,454.72	B-4-1. Additions to property through Surplus	2,422,062 86	423,608.14	
—	B-4-2. Funded debt retired through Surplus	1,519,801.40	1,519,801.40	
—	B-4-3. Fund Reserves	—		1,437,777.5
1,437,777.52	B-4-4. Free Surplus	—		
3,436,232.24	TOTAL ACCUMULATED SURPLUS	3,941,864 26	505,632.02	
29,595.274.19	GRAND TOTAL ...	$30,033,219.28		

Revenue Account

Operating Expenses for 1916			Percentage on Total Operating Expenses	Percentage on Total Operating Revenues
E-1. GENERAL EXPENSES		468,010.79	20.44	12.01
Administration	222,576.83			
Special	245,433.96			
E-2. TRAFFIC EXPENSES		268,472.60	11.72	6.89
E-3. RUNNING EXPENSES		450,193.01	19.66	11.5
Locomotive	381,517.61			
Carriage & Wagon	33,832 14			
Motor Vehicles	—			
Traffic	34,843.26			
Flotilla	—			

E-4. MAINTENANCE OF EQUIPMENT		502,685.50	21.95	12.90
Locomotive Department	502,685.50			
Flotilla Department	—			
E-5. MAINTENANCE OF WAY & STRUCTURES		600,560.32	26.23	15.42
Engineering Department	576,856.21			
Other Departments	23,704.11			
TOTAL $		2,289,922.22	100.00	58.78
E-6. INTERCHANGE OF ROLLING STOCK		27,216.15		.70
TOTAL OPERATING EXPENSES		2,317,138.37		59.48
BALANCE, NET REVENUE		1,578,641.00		40.52
TOTAL $		3,895.779 37		100.00

Operating Revenues for 1916			Percentage on Total Operating Revenues
I. TRANSPORTATION REVENUE		3.778,758.81	97.00
R-1. Passenger Service—Passengers	953.328.15		
R-2. Passenger Service—Other	53,479.65		
R-3. Goods Service—Goods	2,644,126.63		
R-4. Goods Service—Other	127,824.38		
R-5. Ferry Service	—		
II. OTHER OPERATING REVENUES		117,020.56	3.00
R-6. Telegraph	926.69		
R-7. Profits of Central Mechanical Works	66.05		
R-8. Rents	77,907.64		
R-9. Incidental Revenues	38,120.18		
III. R-10. AUXILIARY OPERATIONS		—	—
SUB-TOTAL $		3,895,779.37	100.00
IV. R-11. INTERCHANGE OF ROLLING STOCK		—	—
TOTAL OPERATING REVENUES		3,895,779.37	100.00
BALANCE, NET LOSS		—	—
TOTAL $...		3,895,779.37	100.00

Revision of Railway Fares and Rates in Japan

When estimating the Working Expenses in the Budget of the Imperial Government Railways for the seventh fiscal year of Taisho, the increase of wages and the rise in prices were taken into consideration, but since that times wages and prices have risen much higher than anticipated, and above all coal and iron have prominently advanced in price, the former being about three times, and the latter about four or five times higher in price than before the war. The average increase in price of certain important railway materials is about two and one half times the previous price. Such being the case, a deficit of about 30% in the estimates for the working expenses of this year is unavoidable, and in order to meet this apprehended deficit, the Imperial Government Railways have decided to carry out the revisions of fares and rates as shown hereunder:

(A) Per mile rates for third class fares shall be revised as in the table below and second class fares shall be 1.75, and first class fares, 2.75 times third class fares, instead of 1.50 and 2.50 respectively as at present, these revisions being in force on and after July 16.

	Revised Rates *Sen*	*Present Rates* *Sen*
50 m. and under ..	2.00	1.65
Under 100 m.	1.60	1.30
Under 200 m.	1.30	1.00
Under 300 m.	1.00	0.80
Above 300 m.	0.80	0.70

Comparative table of revised fares and present ones for some principal sections:

Sections	*3d Class Revised Fares*	*Present Fares*	*Difference*
Tokyo-Yokohama ..	0.37	0.30	0.07
" -Kozu	0.97	0.80	0.17
" -Nagoya.. ..	3.45	2.76	0.69
" -Osaka	4.55	3.67	0.88
" -Shimonoseki ..	7.35	6.12	1.23
" -Kagoshima ..	9.26	7.79	1.47
Kyoto-Osaka	0.54	0.45	0.09

Steamer fares, luggage and parcels rates, and other charges will be raised at nearly the same rate as for railway fares, and the increase in passenger receipts is expected to be about 25%.

The revised charges for express trains and sleeping berths are as follow:

Express Charges:—Ordinary Express Trains: First class Yen 2.50; second class Yen 1.50; third class Yen 0.75.

Limited Express Trains:—Under 400 m., second class, Yen 3.00; first class Yen 4.00. 400 m. and above, second class, Yen 4.00; first class Yen 6.00.

Sleeping Berths on Trains:—Second class simple berth single, upper, Yen 0.40 per person per night; lower, Yen 0.80 per person per night; second class berth, single, Yen 3.00 per person per night; double, Yen 4.50 per person per night; first class berth, single, Yen 5.00 per person per night.

(B) Freight rates will be increased by about 20%, and at the same time the general rates applicable on the San-yo Lines and ton consignment rates will be abolished—all to be in force on and after September 1. However, carload consignment rates for the following goods will remain as at present for the time being: Rice, wheat and barley, salt, vegetables, *miso*, *shoyu*, manure, firewood, charcoal, salted fish, fresh or live fish, state textbooks, roll paper for newspapers.

In order to cope with the abnormal increase in volume of passenger and freight traffic which has been witnessed for the last one or two years owing to war conditions, the Imperial Government Railways have done everything that lay in their power, such as the improvement of tracks, additions to rolling stock and connecting steamers, the increase of the number of employees, the betterment of car utilization, etc. These efforts have been rewarded by an increase in the hauling capacity of more than 40% in the case of passengers and more than 50% in the case of freight, and at present a greater volume of traffic is actually being handled. For all this, the hauling capacity is not yet sufficient fully to meet the demands of the general public, and an accumulation of goods at stations and an inability to accommodate all passengers intending to board trains have resulted.

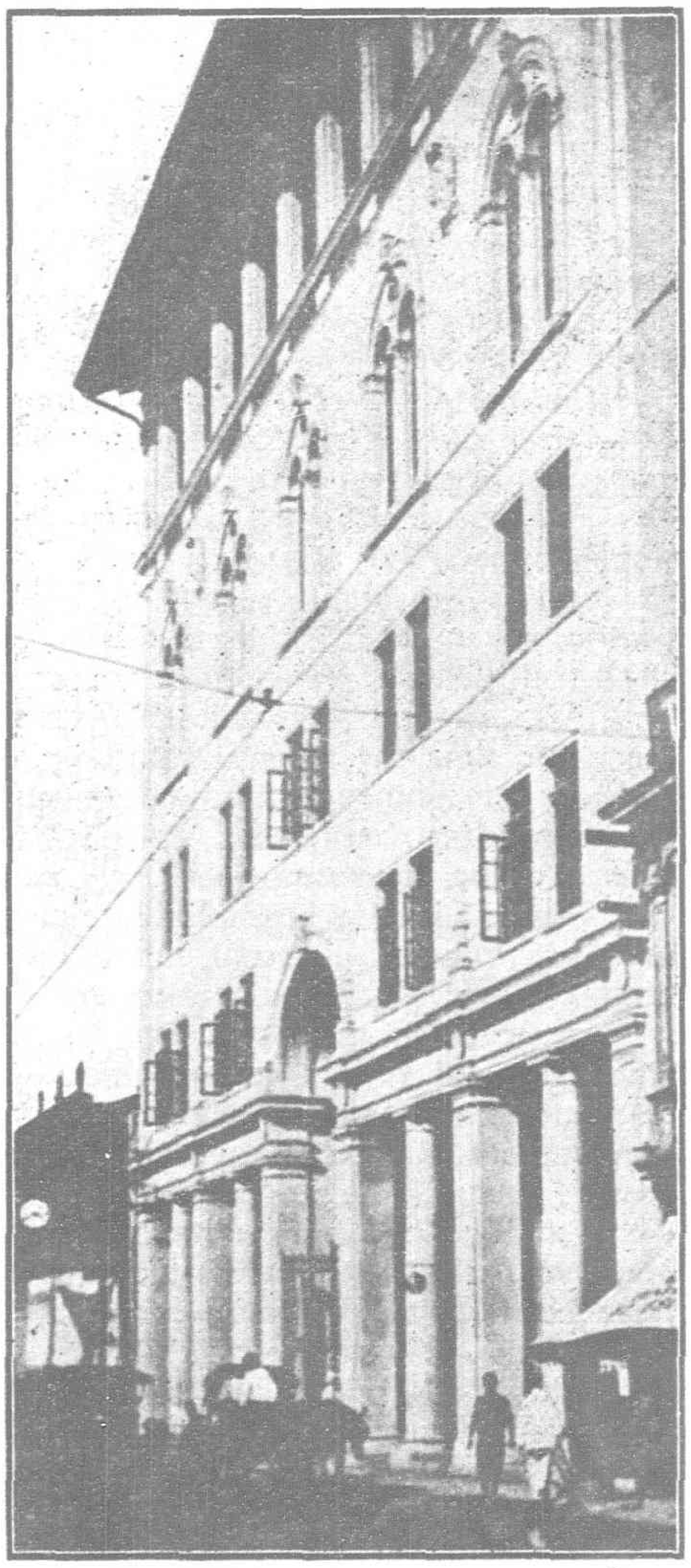
In such circumstances, the Imperial Government Railways are prepared to make further efforts in all phases of railway transportation business, and have already decided to carry into effect as far as possible the doubling of tracks, the additional construction and improvement of stations and signal boxes, the building of new wagons, carriages, and locomotives, the increase of the number of employees, etc., and also to pay greater attention to the training of the employees, in order to increase the efficiency of the railway transportation. Above everything, the Imperial Government Railways will endeavor to obtain new rolling stock, and despite the extraordinary rise in prices and wages, 150 locomotives, 250 passenger carriages, and 2,500 wagons are to be newly built during this year. These figures when added to those of the rolling stock left over for construction from last year will make the total figures as shown underneath for this present fiscal year:

About 210 locomotives; about 370 passenger carriages; about 3,300 wagons.

These figures are double those for average years, but the cost is three times as much. The shortage of iron has placed the Imperial Government Railways in a most difficult situation.

The increase in hauling capacity should necessarily be accompanied by promptness and punctuality in transportation, and in order to conform to this fundamental principle, the Imperial Government Railways, which have been engaged in the study of how to institute the guarantee of the length of time for transportation, are now planning to put that system into effect by binding themselves to refund the shipper part of the freight charge as compensation for delay in the arrival of goods at their destination. This will no doubt insure accuracy and punctuality of transportation. The Imperial Government Railways are taking as reference the Berne Convention regarding the international through traffic of goods.

The present inadequacy in the transportation capacity of the Imperial Government Railways will be temporarily rectified by the means stated above, but a fundamental policy, to meet the future development of Japan's communications, should be formed by a most careful study of the future, as well as the present situation. Japan is a narrow country and surrounded by sea, and this geographical position should be borne in mind when the country's transportation system is considered, for it is a wise policy to utilize sea transportation by fixing the sphere of action for the conveyance of freight by land and sea, so as to insure a harmonious working of both means of conveyance. With this view in mind, the volume of future railway traffic should be estimated, and upon such estimation should be based all improvement works, such as the construction of double or quadruple tracks, the lessening of gradients, the electrification of motive power, the rebuilding of stations, the increase of the number of locomotives, carriages, and wagons, the improvement of safety apparatuses, and so forth.



QUARTERS OF THE PHILIPPINE NATIONAL BANK AT THE ESCOLTA, MANILA

Banking in the Philippines

In the January number of the *Philippine Review* the following editorial comment was made upon the financial statement of the Philippine National Bank:

"A cursory examination into the operation of the bank enables us to say that the Board of Directors has paid particular attention to the promotion of agricultural, industrial, and commercial enterprises—no matter how small—by Filipinos, and that the latter are now in position to establish connections, through the Bank, with manufacturers and business men abroad. It is particularly pleasing for us to note that in this the many years of business experience of Acting President Concepción and his thorough acquaintance with the country's conditions and needs have proved a most valuable asset both to the Bank and the business community itself. The Bank is indeed the golden hope of the Islands, and we trust its Board and President will always bear in mind that a combination of *liberality* with *safety*, and *business ability* with *honesty*, is peculiarly essential to our economic progress under our present circumstances."

The following is the statement of the condition of the Philippine National Bank at the close of business, December 31, 1917:

RESOURCES

Loans and Discounts		P.40,766,886.03
Unmatured Foreign Bills ..		19,531,259.86
U. S. Government Bonds ..		2,000,000.00
Philippine Government Bonds ..		286,000.00
Furniture and Fixtures		125,202.11
Interest Accrued Receivable ..		545,497.83
Exchange for Future Delivery ..		1,818,308.11
Cash, viz.:		
Due from Branches	P.4,332,060.85	
Due from Banks and Bankers ..	2,191,555.40	
Due from Foreign Banks and Bankers	23,664,741.93	
In Vault and with the Treasurer of the P. I.	20,612,014.82	
		50,800,373.00
Customers' Liability L/C ..		22,402,576.74
		P.138,276,103.68

LIABILITIES

Capital		P.7,395,340.00
Reserve Fund	P.1,137,494.00	
Profit and Loss	93,805.38	
Unearned Discount	84,894.35	
		1,316,193.73
Reserved for Fidelity Bonds ..		956.27
Circulation		4,560,000.00
Deposits:		
Insular Government ..	P.67,898,534.57	
Individual Accounts	14,602,722.48	
Due to Banks	2,073,425.08	
Due to Branches	621,719.31	
Secretary's Checks	565,918.79	
Dividend Checks	514,015.90	
Fixed Deposits	15,760,938.46	
		102,037,274.59
Acceptances		2,292,261.60
Interest Accrued Payable ..		366,028.06
Exchange Contracts		1,818,308.11
Letters of Credit		18,489,741.32
		P.138,276,103.68

New Ships Built at Shanghai

Launching of the Solvaer

One of the prettiest launchings ever seen in Shanghai harbor was that of the Str. Solvaer at the Pootung shipyard of the Shanghai Dock & Engineering Co., Ltd., on June 27, before a large number of interested spectators. As the high ship, her hull bright with fresh paint, made her start down the greased ways, Mrs. Sem, wife of Mr. Fr. Sem of the firm of O. Thoresen, ship agents, cracked the bottle of wine on her bows while Chinese workmen crawled out from beneath and burned joss paper and set off firecrackers, and passing steamers and launches whistled.

Like the proverbial duck, the new ship slid into the Huangpu without a splash, anchored, and swung upstream with the tide. Tugs came alongside immediately and took her to the International Dock where engines will be fitted, and later the finishing touches will be put on at the Pootung Dock. In about six weeks the Solvaer will be bound for France with a food cargo.

The Solvaer is of the Friederikstadt type of Norwegian standard ship, the first of the type to be built in China. She will be equipped with the latest appliances for the quick handling of cargo and embodies the latest ideas in ship efficiency. Her loaded displacement is 5,000 tons, which means that she will carry approximately 3,000 tons of cargo. With triple expansion engines she will steam 10 to 11 knots under 1,500 indicated horse power. Her length is 277 ft., 5 in., 42 ft., molded breadth, and 20 ft. molded depth. Her owners are Messrs. Mueller & Johnson, Bergen, Norway, and she was built under the supervision of Mr. E. Mueller, brother of the partner in the owning firm. It is understood that she has been chartered by the French Government for a voyage to France with Saigon rice.

In the company's offices, whither the assemblage adjourned after the launching, Mr. John Prentice, chairman of the Dock Company, said that the ship that had just been launched was the third the company had launched, in a little over a year, for Norwegian owners represented by Mr. O. Thoresen—the first two, the Valuta and the Jan, have now been running for nearly a year and are giving satisfaction to their owners. The Jan went to Glasgow, not long after she left Shanghai, said Mr. Prentice, and was the first steamer built in China to sail to Great Britain and up the Clyde.

"I am certain that had the workers in the yards on both sides of that river, who celebrated the shipbuilding, known that a steamer built in China was passing, they would have crowded to the banks to have a look at her." There are still two sister vessels on the stocks for Norwegian owners represented by Mr. Thoresen: the completion of these is being greatly delayed owing to the scarcity of materials. "Our relations with Mr. Thoresen have always been of the most friendly nature," continued the chairman, "and I trust that after the war is over he may be able to place more orders with us."

Mr. Prentice then asked those present to join him in drinking good luck and a successful future to the Solvaer and her owners, and the owner's agent, Mr. Thoresen, to which the last-named replied in suitable terms, expressing his appreciation of the work of the builders who had turned out as good a ship as could be built anywhere.

Mr. Prentice then proposed the health of Mrs. Sem who so gracefully christened the ship, taking occasion to present her with a bouquet and a small souvenir from the Dock Co. and a basket of flowers from Captains Mueller and Norvals (the latter being the ship's commander), to which Mr. Sem replied.

Mr. W. S. Burns, manager for the builders, told of the many difficulties shipbuilders have to contend with in normal times; and in these times the difficulties were increased many fold. But, in coöperation with Captain Mueller and Captain Norvals, obstacles had been overcome—thanks also to Captain Parker and his colleague of the Norwegian Veritas—and the ship was now launched.

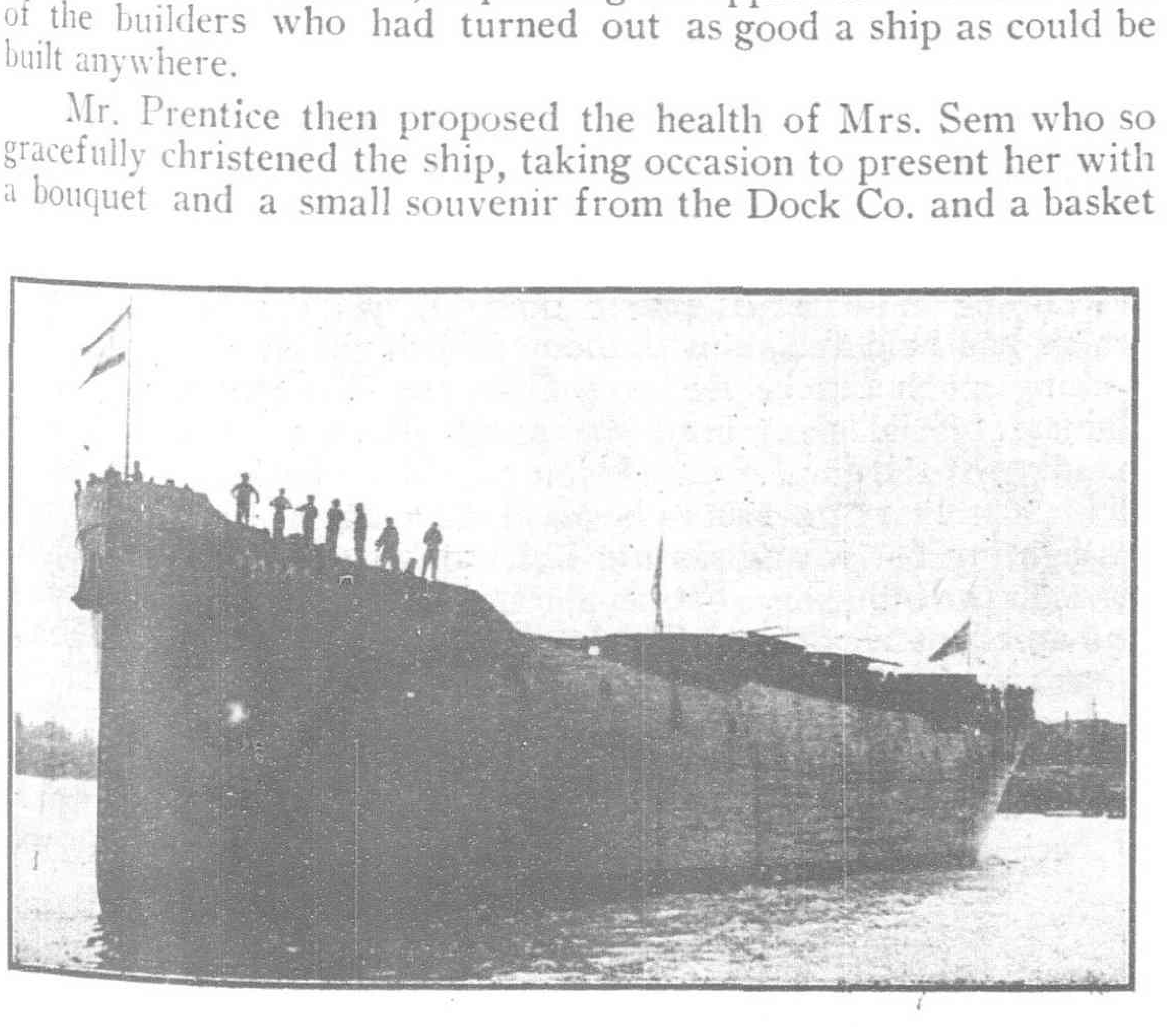
Standard Ships for Britain

The berth vacated by the Solvaer will immediately be occupied, for the keel of the first of three 5,000 tons standard ships for the British Government will be laid at once Besides a sister of the Solvaer now well under way, the company is also building a Yangtze gunboat for the Italian Government, and other craft.

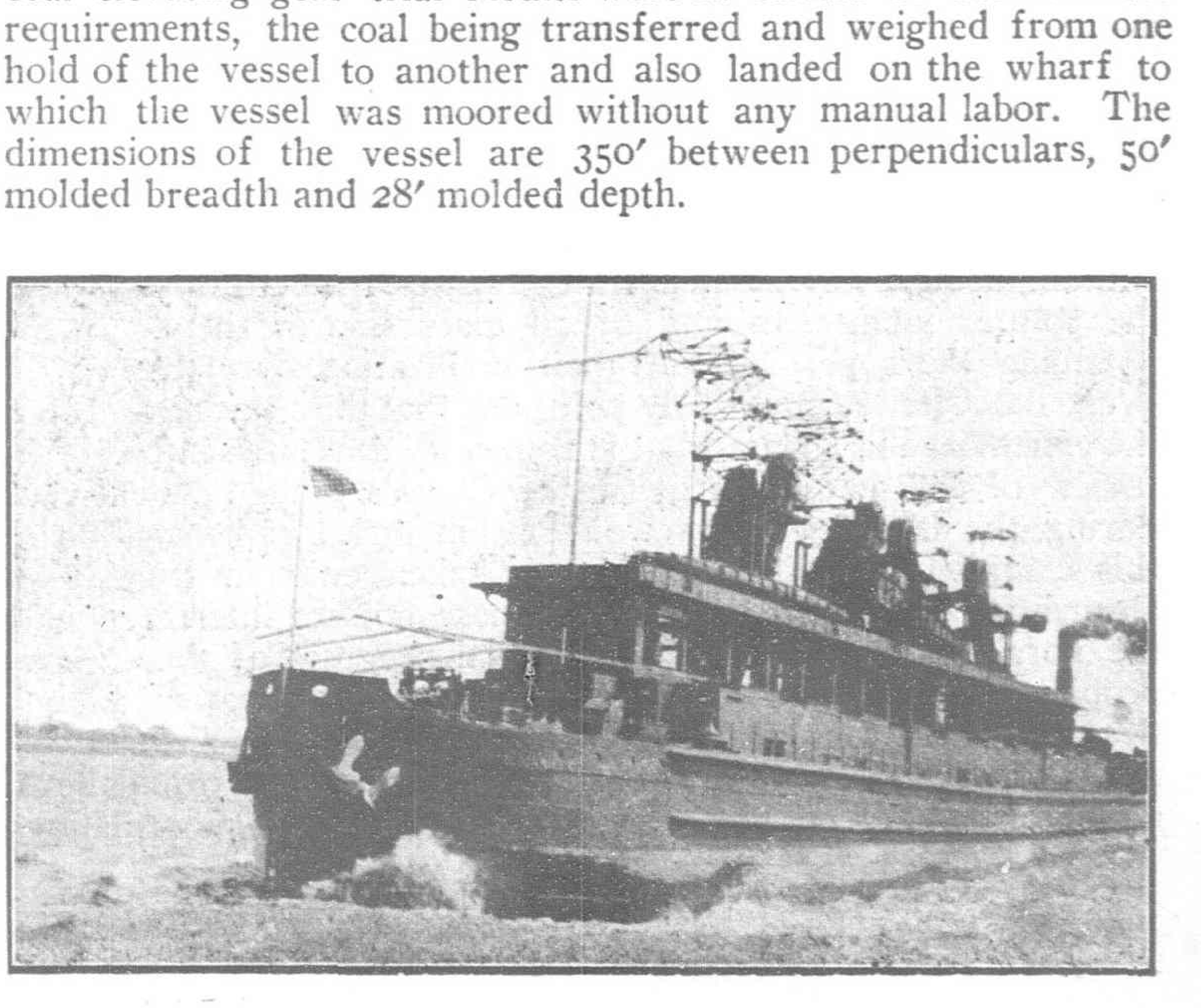
Harbor Collier for Manila

The accompanying photograph is a view of the United States Army Collier No. 1 recently completed by the Shanghai Dock and Engineering Co., Ltd., to the order of the Quartermaster's Department, United States Army, Philippines Division, for service as a collier in Manila Harbor. The contract stipulated that the vessel should be designed to carry about 6,000 tons of coal and arranged so that the coal could be transferred to the bunkers of the various steamers controlled by the Army Department in the quickest possible time and with the minimum amount of labor.

To attain this object the vessel was designed with four independent steam driven movable sets of coal elevating gear each capable of elevating 150 tons of coal per hour from the different holds of the vessel, passing it over electrically-controlled weighing machines and then discharging by shoots into the bunkers of the vessels moored alongside or placing it on a belt conveyor for delivery at a height above the coal elevator into the deck hatches of vessels alongside. The vessel is built with a deep trunkway fore and aft which enable the elevators to travel to each of the four cargo holds on port and starboard side and the bottom of the coal holds being built at an angle of about thirty degrees to the horizontal allows the coal to feed down by gravitation to the elevator boots through the different controlling doors: the deep double bottom under the holds being arranged to carry 2,400 tons of water ballast. The machinery equipment consists of one set of surface condensing engines to enable the vessel to move about under her own power, two large turbine driven dynamo lighting sets, large duplex ballast pump, duplex fire pump, sanitary pumps, bilge pumps, and fresh water pumps; also two sets of Weir's feed pumps and independent circulating and air pump installation, driven by compound engine. On deck a heavy steam windlass is fitted forward and four large horizontal steam capstans are placed in convenient positions for handling ships coming alongside. Accommodation for the captain and the officers is placed in the poop and the crews' accommodation is forward. The photograph shows the vessel with 3,000 tons of cargo on board and was taken during the official speed trials outside Shanghai and gives a good idea of this novel type of vessel. The coal elevating gear trial results were in excess of the contract requirements, the coal being transferred and weighed from one hold of the vessel to another and also landed on the wharf to which the vessel was moored without any manual labor. The dimensions of the vessel are 350′ between perpendiculars, 50′ molded breadth and 28′ molded depth.



LAUNCH OF S.S. SOLVAER



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The Futile Political Game

It is impossible to enter upon a discussion of Chinese politics without being overwhelmed with a sense of the futility of both the politics themselves and of all discussion of them. In expounding the superiority of their civilization over that of the West the Chinese invariably point out that they lay stress upon the essentials and ignore what is transitory and unessential. Any review of the political activities of China's limited official class during the last few years would be in direct contravention of this claim, for every political step taken ends in tragedy or absurdity. If it were not that Chinese politics interfered with the normal industrial and commercial progress of the Chinese people and involved them in all manner of embarrassing difficulties, for which they are not responsible and which they do not understand, the doings of the Chinese Government would be of no interest whatever except to specialists in political abnormalities.

Each political party as it comes into local or national power, disappoints its supporters and exceeds in its follies all previous records. There is no popular control and no director of the affairs of any one group strong enough to steer the party on anything but the most erratic course. The Chinese people, like the bewildered foreign spectator, have given up trying to follow the moves in the game and have begun to cry in more and more strident tones for an end of the turmoil and a resumption of business. But these popular appeals, coming from commercial organizations, provincial assemblies, and the native press, would seem simply to excite the gamesters to further excesses. There was a time when they were content to use the funds that were locally available for their purposes and to withdraw from it when these funds were exhausted, but for the past six months the northern faction known as the Peiyang party, which gambled away all that it could borrow locally early in the game, has been pawning everything in sight to Japanese speculators and has been staking the proceeds on military expeditions into the south with an abandon which grows more desperate as the futility of these campaigns becomes more apparent, and as the inevitable end of such gambling looms more and more clearly in sight. The soldiers exert their brawn for nothing but loot and pay, and will avoid serious fighting wherever possible. The commanders fight for nothing but power and bribes, and as the situation becomes more desperate and the chances of winning power become fewer, they demand higher bribes by way of compensation and retire from the field without warning whenever they think the campaign is about to collapse. Their specialty is retreat, as one writer has said, because their claim upon a share of the money which the Central Government derives from pawning national properties and national interests depends upon their ability to keep a large force of soldiers together and contented. If the campaign is too rigorous the soldiers desert and disband and the general's means of livelihood are gone.

While this great game is being played without visible results of any sort except the reduction of the Government's resources and the devastation of the country over which the rival hordes are fighting, no constructive work of any sort is being done and the Chinese merchants who might have been developing big industries and reaping huge war profits these three or four years are dragging on miserably, with a little less hope of surviving each time the tide of rapine and murder overflows more territory and cuts off or obliterates more markets. Wherever one hears the political situation discussed, in either Chinese or foreign circles, one hears it said that in no period in Chinese history has the governing class given evidence of such a complete moral collapse. One would think that the little group of officials in Peking, known as the Peiyang military party, would stand aghast at the havoc they have wrought in the provinces without a single gain worth mentioning and at the sacrifices of public rights and public properties which they have no thought or hope of redeeming. Some believe that they do stand aghast and that since they see no way of compromising with the nation which they are outraging, or of recouping through their internal war, or of withdrawing from the game with their lives and the fortunes that they have made, desperation in some cases and hardened cynicism in others drive them on.

Those who have watched Chinese politics for seven years are now ready to concede that there is nothing much to be hoped for from a Southern victory over the North, or from the triumph of any one political party over another. Power, without the restraining influence of public opinion, has driven every party which has held the reins into one foolish excess or another, and nothing much can be expected from any clique or group in the Chinese official class until the people have a sufficient understanding of the game that is being played to check it. As one of China's military governors has said, China must earn democracy by fighting for it and she must give up hope of growing into it through the influence of benevolent officials, well ordered schools, and an educative press. She must learn through bitter experience what representation means, what the responsibility of officials to the people means, and what the duties of the people are. The advantages to be gained from pushing one set of officials out of office and pushing another set in are nil. The shorter the tenure of each group upon the public larder the more audaciously will they fatten on it. The fascination of the political game which has gained such a hold upon the imaginations of the younger as well as the elder Chinese officials, the Southerners as well as the Northerners, has wholly blinded them to the futility of it all. Compromise in the interest of the people is impossible because each group wants a complete monopoly of power and the fullest possible opportunity of taking revenge upon all other cliques. The turmoil which has grown out of this division and subdivision of parties is described as rebellion by those in office and as reform by those out of office and, as the onus of keeping the game going always falls upon those in office, who fight only for themselves without mutual confidence or consideration among themselves, the period through which they can enjoy the dignities and remunerations of office is of necessity short. The present régime in Peking has gone a step further than its predecessors in pawning the national properties and has therefore lasted much longer than might otherwise have been expected, but there is every reason to believe that its collapse will be so much the greater. There are signs too that the collapse is coming.

For a clear understanding of Chinese affairs it must be pointed out that none of the rebellions, risings, or revolutions which have effected changes in China during the past seven years have been in any sense popular. They have been interofficial affairs, fought out with armies that were in every sense mercenary. The same is particularly true of the hubbub which is now devastating Hunan and Szechwan, not to mention parts of Kiangsi, Kwangtung, Fukien, and Hupeh. When China has a genuine revolution of the people, a demonstration of widespread popular disapproval of one official group or another, it will be a genuine omen of an awakening and a real promise of a dawning democracy which will provide a properly regulated Government and, in turn, industrial and commercial opportunities for both the native and the foreigner throughout the land. The foreshadowings of such a movement have been growing throughout these seven years of nominal republicanism and while the next political change may not be brought about by a real popular demonstration, it is certain that the people will have a clearer understanding of its significance and will have more and more to say in the regulation of political affairs with every change that comes. The greater the misrule of any one government, the greater the lesson to the people who are getting their political education through suffering, and while it seems scarcely possible that a popular movement or an expression of popular disapproval will put a check upon the present political burlesque it seems equally impossible that the régime which succeeds it will be permitted to indulge in similar excesses.

Least interesting of all features of the political situation is the proposed election of a president. Against the political background this election stands out as one of the most absurd scenes in the whole burlesque. The Peiyang party is going through the polite form of replacing one of its leaders with another. It is disputing within itself as to which of its leaders is to have the honor of occupying the Presidential Palace and of ruling with some degree of authority over the city of Peking and its suburbs, with somewhat less authority in the adjacent half dozen provinces and, with no authority or sanction from the governed, over the rest of China. The electoral body which is to make the decision is selected from the limited number of provinces which are sufficiently well under the Peiyang control to return delegates faithful to the party and likely to favor without quibble the person whom the leaders of the party in military conclave at Tientsin or Peking select as the most deserving chief. No result is expected except the consolidation of the power of some one clique within one of the divisions of the Northern party, and the steps which have been taken toward holding the election have got their advertising through election riots, squabbles among the generals who will not fight, in their convention at Tientsin, and through the murder of Liu Chien-chang, a prominent leader of an unpopular and troublesome subdivision. While this election will be watched with an intense interest by all the political gamesters, it is not of the slightest importance to those who are looking beyond the game and speculating upon China's chances of reforming and surviving, or of collapsing utterly and of slipping passively into the hands of the money lenders whose encouragement and support have sustained the gamblers and have kept the game going.

It would be much more interesting to know how much longer the Japanese will see fit to support the Northern militarists with loans than to know who is to be the next President. The Japanese are fully aware that the military following of Premier Tuan Chi-jui, which is in effect the Government of China, lacks almost wholly the moral and financial support of the people, the merchants, and the officials, and that if the money from abroad which pays its armies were withheld it would collapse in a week. The Southerners have moreover effected a closer union during the past few weeks and there is always the danger that the half-hearted Northern soldiery may suffer a real defeat somewhere and be scattered, upon which a Southern Government might be forced upon Peking and Japan's protégés in Peking would be driven from office before Japan's diplomats had had an opportunity to make friends with the other side. It is therefore believed that the Japanese are looking for a reasonable excuse for withdrawing their support from the Northerners and for making a new alliance with the most promising of the Southern groups. An excellent opening for this would be a campaign in Siberia. When the agreement for military coöperation was signed in Peking by Chinese and Japanese military representatives some weeks ago suspicious Chinese journalists voiced the opinion that it was designed to exclude China from military coöperation with the Allies rather than to prepare her for such coöperation. If Japan were now to announce a sudden decision to enter Siberia in support of the Russian moderates and were to call upon China for assistance, the Northerners would find themselves in a dilemma. If they did not withdraw their armies from the South and send them through Manchuria to Japan's support, the Japanese would have the best possible excuse for canceling the agreement and for renewing it with any Southern party that seemed to be coming to the fore; while, on the other hand, if the Northerners did withdraw their half-drilled and ill-equipped forces from the South and send such as did not desert into Manchuria, the Southerners would be free to advance into the North, to enlist the bandit hordes which now abound in every province, and, with Japanese approval, to put their own leaders in the seats of the mighty in Peking.

Parliaments

China is about to have another Parliament of sorts. It will be a Northern Parliament, catering to Northern tastes and ignoring Southern interests; just as the old Parliament, twice dismissed by impatient Northern functionaries, was a Southern Parliament designed to cater to Southern tastes. A year or so ago we should all have been inclined to take up the political cudgels for one or the other of these bodies—for the Southern organization still meets in Canton—and to argue their respective claims to national Chinese recognition or to foreign recognition. In the same way we should have argued over the merits of the various election laws that have been enacted and the various constitutions that have been framed. The foreign attitude toward these matters has changed however. We have come to realize that the Chinese are not prepared as yet to evolve a workable election law, a workable parliament, or a workable constitution, chiefly because the electorate has not had sufficient experience in political matters to prevent the professional politicians from embodying, either in their constitutions or their parliaments, provisions or modes of procedure which are in support of their own immediate political campaigns.

Each constitution that has been framed has been designed to inflict an immediate hardship upon an opposing party and to bolster up the cause of the party which had the drafting of the document to do. Each parliamentary law has been enacted so that the privileged legislators who framed it could be sure of filling the representative body with their own adherents, who would be expected in turn to support the political policies of those who framed the law. Yet every political change, with its attendant changes in parliamentary organization laws and constitutions, has been heralded as a permanent reform designed to give China a perfect legislative and administrative system for all future time. We have almost believed these announcements at times, but it is now apparent—as it should have been long ago—that the Chinese are only experimenting and that they are destined to learn whatever they do learn of democratic administration through errors frequently repeated. In these circumstances, the more frequent and thoroughgoing the experiments the nearer will they be to perfect wisdom; so whatever is offered in the way of an innovation is welcome. There seems to be very little hope of stimulating industry, trade, modern agriculture, or even modern education in China until some sort of stable government is established, and since it is apparent that the Chinese are not going to shape a new world out of chaos by mandate, but must evolve whatever government they are to have out of their experiments, we should not groan over the repetition of blunders, but rejoice in the rapidity with which changes come, taking them as evidences of a living force in the country which will no longer permit the nation to linger over its unsatisfactory experiments.

One fact that the Chinese have learned already is that any sort of Parliament is better than none. Apart from the experience in Parliamentary procedure which the Chinese have gained from abusing the institution, it has been discovered that while very little good legislation ever has contrived to get through a Chinese Parliament, no evil legislation, no secret agreements to the advantage of high politicians, and no mortgages upon national liberties have ever got past a Chinese Parliament. It used to cost the Chinese Government about $4,000,000 a year to keep Parliament going, but in the period during which there has been no Parliament the unchecked Peking Government has entered into agreements and has put through deals which will eventually cost the nation a hundred times this little sum. Deep, dark, and malign conspiracies can only be engineered by small groups. However eager a parliament might be to go wrong it is too unwieldy a body to guard a secret or to promote a dangerous scheme with any success.

In February a new Parliamentary election law was promulgated. The elections for the members of the new Parliament are now in progress and in the text of the Parliamentary law, which we reproduce elsewhere in this issue, it is provided that the permanent Constitution of the Republic is to be drafted by a selected group of Parliamentarians and that it is to be approved by the Senate and House of Representatives in joint session. Abiding by the doctrine that changes are necessary and wholesome in China at this time, all of these new things are welcome. It is neither to be hoped nor to be desired that any of these institutions will be permanent. The Parliament which the Northern militarists hope to form and control is not likely to be an institution adapted to the needs of the nation for any great length of time. The constitution which such a body will frame is still less likely to be the sort of document which future generations will rejoice in preserving. The Chinese are not prepared to frame a permanent constitution, for they have not had sufficient political experience, nor have liberal institutions in China developed far enough to give any clew to the kind of Government which will be suitable to the Chinese of the second or the third generation hence. If there were any chance that a constitution written at this stage in China's development were to be a permanent law it would be the duty of every well-wisher of the Chinese people to oppose it. But a trial constitution one can conscientiously welcome, and while the ardent democrats of Young China, who think they know all there is to know both of China and of political economy, would greet a document that was frankly promulgated as a trial constitution, with something of the horror with which the pious view trial marriage, the hardened observer of the Chinese political drama has the satisfaction of knowing that whatever constitutional travesty is solemnly evolved by the coming Parliament, or by its successors during the next few decades, is not at all likely to outlive its creator's tenure of office but that it will be a valuable contribution to the Chinese knowledge of what a constitution should not be.

China's Export Figures Defeat German Propagandists

The analysis of the export trade of China for 1917 which i contained in Volume 2 of Part 3 of the "Returns of Trade and Trade Reports," has been issued, and its early appearance calls for congratulations to the Statistical Department of the Chinese Maritime Customs in general and Mr. F. E. Taylor, the Statistica Secretary, in particular. The volume dealing with Imports was recently issued, and usually that covering the Exports does no appear till October. In the volume at hand are shown China's export relations with foreign countries. Measured in values China's products exported in 1917 totaled Haikwan (Customs) Taels 462,931,630, as against Taels 481,797,366 in 1916, the decrease of nearly 19,000,000 Taels being undoubtedly due to war conditions curtailing shipping facilities. It is interesting to note that in 1913, the year before the outbreak of the war, the exports totaled Taels 403,305,546. The war had the immediate effect of causing a drop to Taels 356,226,629 in 1914, but there was a recovery in 1915 to Taels 418,861,164, and thence values of exports steadily rose, indicating that China had some benefit from the troubles of other countries, though not nearly as much as she might have had had she possessed an organized government and enterprising commercial and industrial combinations for the promotion of trade and the development of the country's resources. The table here given shows the value of the export of Chinese produce to each country:

COUNTRY	1916 Hk. Tls.	1917 Hk. Tls.
Hongkong	119,485,650	115,842,946
Macao	3,696,572	4,939,469
French Indo-China	1,443,830	1,621,984
Siam	3,023,590	2,366,079
Singapore, Straits, etc.	8,348,735	6,674,852
Dutch Indies	2,334,736	1,713,778
British India	6,589,999	6,950,387
Turkey, Persia, Egypt, Aden, etc.	2,160,319	1,353,502
Great Britain	34,918,546	26,089,759
Norway	8,967	9,823
Sweden	1,449,297	1,680
Denmark	2,160,350	1,678,822
Germany	321	50
Netherlands	1,105,998	26,356
Belgium	...	...
France	27,261,959	25,536,079
Spain (including Gibraltar)	13,958	19,279
Portugal	307	...
Switzerland	1,468	3,695
Italy	6,305,978	3,905,824
Austria and Hungary	88	...
Russia, European Ports	4,222,617	477,813
,, and Siberia by land frontier... ...	20,444,813	13,438,274
,, Amur Ports	3,790,230	7,085,862
,, Pacific Ports	37,056,545	28,748,557
Korea	6,601,511	8,518,934
Japan (including Formosa)	112,922,258	105,773,819
Philippine Islands	1,075,037	1,502,285
Canada	1,539,163	2,686,522
United States of America (including Hawaii)	72,080,705	94,786,229
Mexico and Central America (including Panama)	949	5,178
South America	86,537	44,532
Australia, New Zealand, etc.	1,614,891	1,027,370
South Africa (including Mauritius) ...	51,442	41,891
Total exported abroad	481,797,366	462,931,630

It is interesting to note the effect of the war on Germany's trade, and if the Chinese wish any evidence completely to satisfy themselves as to where Germany stands now, they need go no further than their own statistics.

In 1913 Germany took from China products to the value of Taels 17,025,224, and in 1917 her trade in this direction had shrunk to the miserable value of Taels 50.

Austria and Hungary in 1913 took products to the value of Taels 1,550,175, and in 1917 the total of the Dual Monarchy was NIL. Virtually Germany's score was also nil.

In comparison what was the status of Great Britain during the periods mentioned? In 1913 Great Britain took China products to the value of Taels 16,346,413, while in 1917 they increased to Taels 26,089,759. In 1915 the figures were in round numbers Taels 32,000,000 and in 1916 Taels 35,000,000. These figures do not include the Hongkong trade or that of any other part of the British Empire. While this complete cessation of German and Austro-Hungarian trade would seem to mean a loss to China of Taels 18,575,389 it has to be borne in mind that other countries have much more than made it up. In 1913 China's total export trade was Taels 403,305,546. In 1917 it had increased by Taels 59,626,084, and in 1916 by Taels 78,491,820.

While on this aspect of the question, it is interesting to refer to the import trade—the products Germany and Austro-Hungary supplied to China.

In 1913 Germany sold to China merchandise to the value of Taels 28,302,403, and Austro-Hungary supplied merchandise worth Taels 4.121,913. In 1917 the imports from Germany were NIL, while the Austro-Hungarian figures came down to Taels 1,035, simply because, of course, these countries were unable to bring to China any of their products.

These comparisons from China's own trade reports completely answer the allegations of all German propagandists, and permit thinking Chinese to draw their own deductions.

To revert to the export trade, the report shows that China's chief ports of export are Shanghai, Tls. 197,354,659; Tairen, Tls. 51,575,541; Canton, Tls. 49,994,066; Suifenho, Tls. 17,982,550; Tientsin, Tls. 17,375,935; Chungking, Tls. 16,899,201; Kowloon, Tls. 14,172,690; Mengtsz, Tls. 12,865,668; Hankow, Tls. 12,767,776 and Manchouli, Tls. 11,169,911.

The Floods in South China

(Contributed)

Reports have recently reached Hongkong that there are serious floods in the province of Kwangtung. It is always difficult to estimate the accuracy of such news, but our informants are quite convinced that the present state of affairs is bad, and one of them says that it is worse than in 1914. If so we must be prepared for the terrible tales of poverty and suffering, the inevitable appeals for charity, and the immediate necessity of assisting in a practical fashion. And yet it seems so futile to dole out charity every few years when our hearts are touched by the tales of disaster; when we know that what is needed is money for engineering work. It has been estimated by an expert that the cost of a preliminary program for the first six years would be $11,369,000 (Hongkong currency).

After the terrible floods of 1914 the attention of the President of the Chinese Republic was drawn to the sad state of affairs, and in December, 1914, he formally appointed Admiral Tan Hsia-heng as Director-General of the Board of Conservancy Works of Kwangtung. The Admiral wisely sought the advice of a European expert, and Mr. V. Heidenstam inspected, with him, the most important rivers of Kwangtung. This expert did two useful things. He submitted a valuable memorandum on the subject, and he advised the appointment of Captain G. W. Olivecrona, with a suitable staff, so that definite data might be obtained. Admiral Tan very wisely published an excellent report* on the whole subject soon after Captain Olivecrona completed a most laborious survey of the West River. His work took exactly one year, from June, 1915, to June, 1916. That work was estimated to cost $160,000 (Hongkong currency). It was well worth it.

The preliminary ground has been cleared, and let us see what is, and what is not possible.

(a) The building of reservoir dams, or any other method of storing water during the rainy season would be so expensive that any such methods were rejected.

(b) An afforestation of the country, desirable and economically feasible as it is, would not affect the situation for at least thirty and probably not until fifty years.

(c) Deepening or widening shallow or narrow passages is not a very hopeful solution of the problem. Nor was Mr. V. Heidenstam sanguine about creating a new inlet into the so-called South-West River.

(d) The only really feasible method involves building, improving, protecting, and maintaining a complete dike system to proper levels.

Subsequently Captain Olivecrona submitted his carefully considered and detailed estimates of dike construction and new sluiceway, together with repairs of old ones. The total cost of six years of work, as mentioned above, was placed at nearly 11½ millions of Hongkong dollars. But as the estimates contain only such items as "Earth-fill," "cement concrete," "repair of sluiceways," etc., and do not mention the fees of engineers, the cost of motor boats, and the many other items which can be summarized as "administration expenses," we may suppose that the total cost would be nearly thirteen million Hongkong dollars.

It seems a very large sum of money, but in these days of high finance it is not really very much. In normal times we reckon ten Hongkong dollars as equivalent to a sovereign sterling, and that two are equal to a gold dollar. So that the total cost of this extensive engineering work, most of which would be spent on labor in a district which seethes with rebellion and piracy, chiefly due to unemployment, would be less than £1,500,000 sterling. The whole of the expenditure would be productive and not only employ, immediately, labor, but insure food and save life and property.

The war expenditure of Great Britain is nearly £7,000,000 per day. None of that is productive, but of course it is well worth while. But of course it is well worth while. But think of what America and Great Britain are spending in order that Europe may be a place fit to live in. Then how small does this sum, so greatly needed in Kwangtung, appear.

There is one sentence in Mr. Von Heidenstam's report which ought to be quoted, for it strikes at the root of the whole matter. It infers that money may be easily wasted, and experience has shown that to be true. He wrote, "I beg to emphasize as regards the engineering work that the result will be infinitely better if at the start foreign engineering organization and discipline, as well as a foreign system of auditing, is strictly adhered to, and that without such an organization the work will probably not be a success."

In order to appreciate the area affected it is necessary to study, simultaneously, maps, to the same scale, of Kwangtung and England or France. Then remember that Canton is the largest city in China and that the area affected by the floods is amongst the most densely populated on earth. Further, do not forget that the soil is most fertile and that the vegetable and mineral resources are most valuable. And, if you carefully study the whole matter you will agree that it is almost impossible to consider any project in China in which the same sum of money as is necessary to prevent the floods in the South could be so well spent.

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*Summarized in the FAR EASTERN REVIEW, April, 1917, issue.

The Making of Hunghutze

[BY PROF. JOSEPH BAILIE, UNIVERSITY OF NANKING]

We hear a great deal nowadays of Hunghutze and robbers generally. Having been in Manchuria for two months attempting to secure lands on which to colonize some of the famine refugees from the flooded regions of Chihli, I have learned some of the abuses of landownership and its bearing on the poverty of the nation and, therefore, on the outlaw problem.

I have been led over large tracts of land, some of them containing many tens of square miles. The "owners" wanted to sell "dirt cheap" sometimes at much less than the same lands could be obtained originally from the government. I was puzzled how this was possible. It is done exactly in the same way that a dishonest importer of goods in the United States can undersell and put out of business his honest competitor by forging false invoices and so robbing the nation of duty. I found out that one man who wanted to sell me ten square miles had originally obtained from the government only four acres but wrote out the boundaries of the place that he included over twenty square miles. Of course he can sell cheap to any one who will have his land.

I also noticed, in walking over this land, that here and there were small patches of forty or fifty *mu* that had been farms some years ago. On inquiring from the "owner" how it was that the farmers left, I was informed that they got discontented with this region and went to the plains or some other place. Later, I discovered that the real reason of these lands being vacated was that when Mr. Owner obtained the grant of his four acres from the government, he found that on some parts of his twenty square miles of land farmers had settled already for years. Here was where his hope lay, in that he could squeeze a substantial rent from these poor, honest folk. The excessive rent demanded drove them away and they either went where they would be allowed to live in peace or become robbers.

This is how robbers are manufactured in Manchuria, and in crossing over the two ranges of mountains between here and Kirin you will be wise not to look up among the branches of the trees, for sometimes up there you can see the head of one of these very men swinging in a basket or hanging by the queue. This is the method of curing a disease by treating the symptoms instead of treating the cause of the disease.

In proof of the point that "Hutze" are produced by this sort of landownership, we have an instance where this case was reversed at Laianhsien, in northern Anhwei. When we went there to colonize, the official said that it could not be done as the place was infested with robbers and people who had gone up there to plow had had their animals carried off by force, or, in case the planting had been allowed to go on, the harvests were stolen. That place is now full of honest, law-abiding citizens and no such thing as robbery is heard of. The robbers are fed and the official is very much pleased. Why not try the same remedy here? The officials say it won't work here for these people are innately "Hutze." One high official told me that the plan which succeeded in Anhwei would not do here, for that he himself had put out a proclamation offering land and a cow to every "Hutze" that would come. And I said, "Of course they came for you to cut off their heads." "No!" he said, "Not a man came." No! sparrows are not caught by chaff. Why didn't he offer land and a cow to every poor, honest man who could secure some farmer as guarantor? If he had he would have cleared the region of "Hutze."

Motor Service Between Kalgan and Urga

An attempt is being made to establish a regular motor car service across the wide, unoccupied spaces lying between Kalgan and Urga; a region which the "intrepid" traveler delights mouthingly to describe as "the Gobi Desert." No real desert is encountered on the journey. From the point of view of traffic the hardest part of the road is the climb through the rocky ravine known as the Kalgan Pass, to the tableland at Hanaba, some fifteen miles from Kalgan railway station. Thence the country is farmed for fifty miles, and grazing lands continue a third of the way to Urga. A narrow strip of gravel waste land, which is the eastern spur of the Gobi, is then reached and may be crossed in a motor car in six or eight hours at most. Grazing lands are then again entered and continue on to Urga. Altogether the country is splendid for automobiles in dry weather, which is most of the year. The only rain is in the shape of heavy thunderstorms and showers in the summer time. In the winter the temperature is below zero for four months, and below freezing point for almost six months, the cold being accompanied by high winds.

In recent times cars have frequently traveled between Kalgan and Urga, and during the past couple of years quite a little traffic has been carried on by power vehicles, the journey taking between three and four days. Some Chinese who have ventured to supersede the bullock cart and the camel with the motor car have paid for inexperience and two or three vehicles are rusting by the wayside, their owners being indifferent to their fate or without the capital to have them hauled in for repair.

A company styled the Ta-cheng Motor-bus Company has started with better organization, and having tried out the project now advertise that they are running cars regularly from both Kalgan and Urga on the 5th, 15th, 19th, 20th, 25th, and 30th of each month, reaching their destinations in four days. Each car carries four passengers, who are allowed to carry 30 lbs. of baggage each, the fare being $120 for a single trip. There are intermediate stations where it is claimed food, drinks, bedding, etc., can be obtained.

The Peking-Kalgan Railway is fathering a test with six cars which started out on the 10th of March, and the report is that the test was satisfactory. It is intended to put further cars on the run in course of time, so that very shortly quite a number of power vehicles should be crossing and recrossing the country. Hitherto merchandise has been hauled on bullock carts or carried on camels, and took up to forty days to make the journey. The introduction of motor trucks will hit this time-honored method very severely, and motor trucks are certain to be used as soon as the Chinese responsible for the new enterprise are satisfied that they can perform the work. Foreigners know that they can, of course, but the Chinese have yet to be convinced. Were the development of traffic in the hands of foreign experts we should soon see regular lines of freight carriers in operation and a great quantity of merchandise moving into and across the territory.

BOOKS RECEIVED

RULES OF COURT (British Jurisdiction in China), 1905–1916, Made under The China Orders in Council, 1904–1915; The Foreign Jurisdiction (Admiralty) Order in Council, 1910, and The China (Companies) Order in Council, 1915. With Amended and Repealed Rules noted, and an Index. By W. B. KENNETT, Solicitor, Printed and Published for the Committee of the Bar of H. B. M. Supreme Court for China by the North-China Daily News and Herald, Ltd., Shanghai. Price $8 (Mex.) net.

THE LEGAL OBLIGATIONS ARISING OUT OF TREATY RELATIONS BETWEEN CHINA AND OTHER STATES. By M. T. Z. TYAU, LL.D., with preface by Sir John Macdonell, K.C.B., M.A., LL.D., and the Hon. Wu Ting-fang, LL.D. Published by the Commercial Press, Ltd., Shanghai.

JANE'S ALL THE WORLD'S AIRCRAFT, originally known as "All the World's Airships" (*War Flying Annual*). Founded by the late Fred T. Jane, edited and compiled by C. G. Grey, Editor of "The Aeroplane." Eighth year of issue. Publishers: Sampson Low, Marston and Co., Ltd., London and Edinburgh.

JANE'S FIGHTING SHIPS, 1917. An Encyclopedia of the Navies of the World. Acting Editor: Maurice Prendergast. Twentieth year of issue. Publishers: Sampson Low, Marston and Co., London and Edinburgh.

Anglo-American Association Formed in Peking

The lawn and "ting-erhs" (Chinese pavilions) of the British Legation constitute one of the most picturesque spots in the Chinese Capital; and when these are lighted by red lanterns embowered in greenery and shining down upon banks of flowers, and the night is dark, and the air is full of balmy scents of the Orient, and there are black-bearded Sikh sentries to salute the guests as they pass up the steps between the highly-polished guns gleaming beneath their canopy of palm leaves, and in the vista beyond them is the massive pavilion upheld by majestic pillars, amid which are set many tables adorned by red-shaded candles lighting up white linen, glittering glass, and polished silver, with a band playing in the near distance, there is reason in imagining that this fairy scene is straight from the magic pages of the Arabian Nights, and cannot be the creation of so prosaic a body as the British Chamber of Commerce.

Such was the setting on June 19 of the return banquet to the American community in Peking under the auspices of the British Chamber of Commerce. As Sir Francis Aglen, the Chairman, remarked, the function was held on historic ground. That time eighteen years ago, many of the foreigners, including Americans, who were besieged by the Boxers, in the Legation, were sleeping on the ground. Many American civilians were working with British civilians and military men in defense of that small portion of British territory against men who were endeavoring to destroy that part of Peking and wipe out the foreigners. Now Americans and British were fighting shoulder to shoulder in France against other foes of civilization.

Those Americans and Britons left in Peking are helping the cause of their nations by laying the plans for future coöperation. They are contributing to the movement for an Anglo-Saxon entente of the most far-reaching kind, with motives distinctly beneficial to the vast country in which they sojourn, and eminently advantageous to civilization. What great force may develop out of this gathering and others like it only history can tell, but the first practical result is indicative, and that result was the adoption, amid applause, of the following resolution:

> 1.—That an Anglo-American Association be formed in Peking, with the object of promoting social intercourse between its members and of facilitating coöperation in the protection of common interests and in the pursuit of common ends.
>
> 2.—That membership of the Association be open to all American and British residents in or near Peking.
>
> 3.—That the affairs of the Association be managed by a Committee of 12 members, of whom 6 shall be British and 6 American, and who shall choose from among their number the officers of the Association.
>
> 4.—That the Committee shall be elected by the members at their Annual General Meeting to be held in the month of October of each year.
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> 5.—That pending the first election, a Provisional Committee be formed of six nominees of the American Association of North China and six nominees of the British Chamber of Commerce, Peking; and that the Provisional Committee be hereby authorized to draft rules for submission to the first Annual General Meeting for approval.
>
> 6.—That the subscription of each member of the Association for the remainder of the current year shall be $2.

The guests included the American Minister and the members of the American Legation staff, the officers of the American garrison, and the American civil community, while the hosts were the British Minister, the members of the British Legation staff, and a large number of Britons, official and unofficial, resident in the Capital.

The various speeches breathed sincerity in an endeavor to "get together." Sir Francis Aglen pleaded for understanding of the reserved, stolid Briton, who, if he could not say very much felt very deeply in his heart.

In response to the toast of "Our American Guests," proposed by Sir Francis Aglen, Dr. Reinsch, the American Minister, said that if some permanent organization were evolved from the gathering he felt sure that one of its objects would be to help the country in which they were living. He thought Britons and Americans could, and would, do much more to make the Chinese leaders and masses realize what this war meant to them, what it meant in the way of human ideals, the protection of the weak, the sanctity of treaties, and everything making for the happiness and peace of mankind. When their forbears roused China from her isolation, they gave her entire history a new direction. But they also assumed the duty of helping her to bridge the abyss between her old and modern civilization. Coöperation was desirable not alone to promote commerce and develop China's resources. China could be helped in many other ways. By infusing new life and prosperity into China they would take the shortest road to prevent a revival of the schemes of their enemies. All present, he thought, must feel that a more intimate and better understanding between their two nations was the only thing that could repay them for the sorrows and bitter experiences of this war. It was not a new thing, this desire for a better understanding between the two peoples. It was going to be a very powerful factor in the future. With these words he proposed the health of "Our Hosts."

The Rev. E. Bentley, British chaplain, spoke as "a citizen of the most inarticulate people on the face of the earth," but his eloquence belied the soft impeachment. Britons, he said, were not unmoved at the spectacle of the great single-hearted purpose inspiring all the multifarious forces of American national life to-day, and they recognized the high ideals of American statesmanship, which strengthened so tremendously the guarantees that the issue of this struggle would tend to the peace and freedom of all nations. The spring of their highest hope was in the union which the two peoples were finding now. What was the basis of this union? It must be a union that would far outlive the war, which would endure when its memories were fading into a distant past. It must go beyond coöperation in the fields of diplomacy and commerce, however important this might be. Coöperation would be the consequence rather than the cause. The foundation of union was neither diplomatic nor commercial, but personal. Behind all exterior manifestations of national life was the character of the people. What America was to Britain, what Britain was to America was what Americans were to Britons, and Britons to Americans. Treaties and charters were but symbols of a union between nations; its reality and permanence was derived from the mutual feelings subsisting between those nations. The bond that would truly bind them together was one that was not merely written on paper, but in their hearts. There were certain very marked differences between the two peoples. Americans were by instinct and training sociable. The sympathy and considerateness of their social life were very marked, and both filled us with wonder, and put us to shame. For Britons were, in one word, "Oysters." They had the manners of oysters and were aware of it. Their American friends must be very patient with them, and lure them from their shells. Americans also had a spirit of adventure and simplicity of aim which we almost wholly lacked. Traditions and precedents and conventions were the breath of our life, and the marrow of our bones. The absorbing passion of our life was to be normal and conventional. We had a tremendous lot to learn from Americans, and perhaps there were one or two things they could learn from us. Frank intercourse and simple readiness to learn from one another in all patience would enormously enrich our national life, and give reality and strength to our union.

Professor Dennis, American Constitutional Adviser to the Chinese Government asked what was the common and peculiar heritage of Britons and Americans? They had a great common asset in their language. In the domain of public law they declaim they had no serious competition. The Anglo-Saxon contribution to private law was not as outstanding. But in the realm of public law the Anglo-Saxon could, he thought, fairly claim to be preëminent. Anglo-Saxon constitutional law had furnished the model for all the free governments of the modern world. Every parliamentary government in the world owed its inspiration in varying degree to England and the United States; every Presidential Republic, to the United States and England. This heritage imposed its obligations and it behooved Britons and Americans in China to remember that Anglo-Saxon freedom under the law was not fought out nor wrought out in a day. Six and a half centuries stretched out between the day when King John swore to obey the provisions of Magna Charta, at Runnymede, and Lee's surrender at Appomatox. They were centuries of blood and tears. It was less than six and a half years since Yuan Shih-kai swore to obey the Chinese Constitution. What wonder that they also had been years of blood and tears! When we thought of the common people of China, patient, intelligent, industrious, and law-abiding, who had paid the price in life and treasure for this struggle, for ordered liberty, one might conceal a sigh, but never a sneer. We ought so to conduct ourselves that when she emerged from her troubles, the full peer of other nations of the earth, we could rejoice in her triumph, proud that we had sympathized with, and as far as lay in our power, helped her, in her hour of distress.

There was another obligation devolving upon Briton and American not only in Peking, but throughout the world, and that was to point the way to the world league of the future, which practically every great public man in the world now saw in some form to be inevitable if the world was not to slip back into barbarism. They must see to it that they made good in their hour of triumph the professions of their hour of trial.

Mr. S. F. Mayers proposed the resolution given above. There was, he said, nothing new in the idea of Anglo-American coöperation in this country. It had frequently been found advantageous for their respective Governments to act together here, in the pursuit of a common policy; and in missionary, charitable, and educational work much had been done for years past by means of collaboration between their compatriots. In the field of railway finance they tried it, and the experience gained thereby had shown that they could pull together in that class of business.

Anglo-American coöperation could be made to serve their fundamental interests in this country; namely, commercial interests, more generally than heretofore.

Peculiar conditions existed in this country. Business here was carried on under treaty, and the expansion or restriction and particularly the infraction of treaty rights were all matters of common concern. It was not unreasonable to believe that a closer coöperation might result—with no detriment to China—in the improvement of their whole commercial position under treaty provisions. It was, in his opinion, chiefly in the sphere of engineering, economic, and industrial enterprises that the idea of coöperation would probably find its most practical expression. The material waste and destruction of the war had got to be made good as far as possible, in the years to come, and the whole world must contribute. Means must therefore be found somehow without participating in any wrongful exploitation of the country in which they lived—to induce its leaders to utilize the natural resources and raw materials with which China abounds, at a time when the world would need them most. It was at least possible that the determined association of British and American endeavor in this direction might succeed in overcoming the obstacles which had hitherto blocked the way of individual enterprise.

In order that the possibilities of closer coöperation, both during the war and after the war, might be fully studied and frankly discussed, and in order to demonstrate to friends and foes the prevailing spirit of Anglo-American unity of purpose, it had appeared desirable to form an Association which would not only be a connecting link between the local branches of the American Association of North China and the British Chamber of Commerce, but also serve to bring the two English-speaking communities into closer social touch.

Mr. Roger S. Greene, in seconding the resolution, said that the promotion of coöperation between the peoples of the world was perhaps the most important task of our generation, and if this coöperation was to be effective and permanent, it must be based on a better understanding, on more frequent intercourse, between the citizens of all countries than had been common hitherto. It was natural that the first step should be to bring more closely together the British and American nations. It was curious how difficult it had been at times to maintain a good understanding between these two peoples who have so much in common in ancestry, language, political institutions, and religious beliefs. Injudicious and often actually misleading methods of teaching history in their common schools had had something to do with retarding the development of a right understanding between them, and that was being gradually remedied as the teaching of history was being placed on a more scientific basis. Shortsighted commercial rivalry had also played its part at times.

Being an American he naturally thought of what benefit the Association might bring to Americans. Our different environment and during the past few centuries our different histories had had their effects upon national characteristics. Our strong and weak points were not identical. The comparative isolation of the United States had made it easy for Americans to view international questions from a detached and idealistic point of view, which it had been more difficult for Europeans to maintain. Hitherto free from serious anxiety regarding their own safety and well-being he thought that the American people had been sincerely anxious to pursue a liberal and just policy toward the rest of the world. Prosperity had made a kind of generosity easy to them.

They had talked about the open door in the Far East, but they had built a wall of tariffs and drastic immigration restrictions around their own country, and with wonderful unconsciousness of any inconsistency they had tried to close the tariff door in the Philippines, at the very threshold of China. But Great Britain, with the courage of her convictions, had tried to keep the door open, not only in these parts of China where her influence was strongest, but also in her own territories and in those of her colonies whose policy her home government controlled. What other government had refrained from establishing protective tariffs in its colonies, what other strong maritime nations had allowed foreign ships to participate on an equal basis in the possessions, or had allowed foreigners to command its merchant ships?

He hoped and believed that their association would be able to play some part in establishing those principles of coöperation and the square deal as the basis of international activities in China.

Mr. Charles Denby, former U. S. Consul General at Shanghai, who is now in China investigating for the U. S. War Trade Board recently stated that "as facilities for shipping improve trade restrictions will doubtless be withdrawn. The U. S. are heavy buyers from China and want to equalize in trade, as well as to accommodate the buyers over here, by selling to this country. The present high exchange, the war needs of the other countries, the lifting of the Boxer Indemnity and other factors due largely to the war have gone to create most favorable trade conditions in China." *This is preparing the way for a great commercial era following the cessation of hostilities, and those foreign nations which are prepared for it will reap a golden benefit.*

Applied Electricity in Japan

Exhibition at Uyeno Reveals Progress

The Electrical Exhibition which was held at Uyeno Park, Tokyo, between March 20 and May 20 of this year was a unique landmark in the remarkable mechanical progress which Japan has made in recent years. Japan has been manufacturing for some years nearly all the electrical devices which the growth of her industry demands and which adds so much to comfort and luxury of modern Occidental life; but this was the first opportunity which the Japanese people have had to review the progress which has been made by their progressive manufacturers in the electrical line.

The buildings covered a ground space of 6,904 tsubo (1 tsubo is six square feet), upon which were erected two large buildings, the property of the Industrial Association, and several smaller ones put up by individual exhibitors. The main building covered a space of 2,200 tsubo and was divided into three halls, East, West, and North, while a separate hall with a space of 300 tsubo was erected on the southern part of the premises. Guide books were provided by the Exhibition Association so that visitors could inspect the exhibits at their leisure and at their own convenience. The exhibits were divided into thirteen classes as follow:

Class 1. Electricity and the Household: Cooking appliances and utensils; toilet sets; cleaning utensils; stoves and furnaces; laundry appliances and fittings; electric fans; small electric motors and their appliances; electric bells and indicators.
Class 2. Electro-chemical Industry: Electrolysis; electric furnaces; machines, apparatus and tools relating thereto; their products.
Class 3. Electrical Communications: Telegraphs; telephones; electric signals, etc.
Class 4. Electric Illuminations: Electric lamps; materials used for the fabrication of lamps, shades, and globes; electric illumination appliances; electric advertisement, etc.
Class 5. Generation and Distribution: Generators; transformers; switchboards; conducting wires; cords; connecting appliances; meters; lightning rods; switches.
Class 6. Application of Electric Current: Motors and appliances; devices for the application of the electric current.
Class 7. Electric Vehicles: Electric cars; electric automobiles; aëroplanes; motor boats.
Class 8. Electricity and Agriculture; Mining and Fishery Industries.
Machines used in mining; machines and farm implements used in agriculture; fittings and tackle used in fisheries, etc.
Class 9. Development of electricity.
Class 10. Materials used in Electric Industry: Electric wires; cables; insulators.
Class 11. Electro-physical and Chemical Apparatus; Electric Medical Appliances.
Physical and chemical apparatus; medical and surgical apparatus and appliances.
Class 12. War and Electricity: Ordnance; war requisites with the application of electricity.
Class 13. Government and school exhibits, etc.

As a popular show the exhibition was not a success but it will undoubtedly have a far reaching effect upon the future of Japan's electrical industries and especially upon manufactures adapted to Japan's foreign markets. It is well known that Japanese electrical engineers are about to start a campaign in China for the extension of trade in their products to that country's great markets, and it is apparent that the organizers of this exhibition had the furtherance of the campaign in mind, for those departments of the Electrical Exhibition which were of most interest to those contemplating investments in China were most in evidence. A secondary purpose of this arrangement was probably that of interesting the foreign visitors in Japanese electrical works. Chinese business men and newspaper men were especially welcome and were also invited to visit Japan's largest electrical engineering works, such as the Shibaura Engineering Works, the various works of Furukawa & Company, the Hidachi Engineering Works of the Kuhara Mining Company, and others. It is impossible to estimate what impression the exhibition may have had upon the Chinese visitors, but they certainly had the effect of stimulating interest among the Japanese engineers and they will probably bring about keener competition among them, which will be conducive to progress in this line.

Electrical engineering work in China has been almost entirely in the hands of German, British, and American firms or their representatives, while Japan has had a very small share of the trade. Only recently has Japan begun to find an extensive market in China for electrical bulbs, cables, wires, and minor fittings. This trade in small articles has been developing steadily and while its growth has not been in keeping with the ambitions of Japanese engineers, the latter are gaining confidence and acquiring the capital with which to compete with the American and European engineers. This expansion in the trade has mostly come during the war in Europe.

Government reports show that Japan's total export of electrical supplies to China for use in electrical plants scarcely exceed a million Yen in value. The following table, taken from official reports, shows the expansion in several districts through four years:

Exported to	1915	1914	1913	1912
China	Y.858,068	Y.584,047	Y.556,669	Y.322,237
Kwangtung	454,346	397,774	379,659	211,509
Hongkong	128,904	29,773	37,659	28,581

Although this Exhibition will probably stimulate competition in China there is a strong movement on foot, fostered by the Japanese Government, to organize a commercial union for the promotion of Japanese interests in the electrical development of China, and the Japanese Government has promised the union its official support. The former attempt to organize such a union was a failure, owing to a clash of interests, but a new attempt to organize gives some promise of success.

The China Industrial Development Company, is an organization formed by several leading mining and engineering concerns for the purpose of marketing Japanese electrical machinery in China and for placing investments in electrical enterprises in that country. Several Japanese concerns have been established in Shanghai, their principal trade being in lamps and wires.

The history of applied electricity in Japan is not a long one, the first practical application being no earlier than 1886, when the Tokyo Electric Light Company inaugurated street lighting in the capital. Before that date the people regarded applied electricity as magic and were very backward in the study of the science, although some knowledge of electricity was brought to Japan nearly a century ago by the European merchants and physicians trading or residing at Nagasaki. After street lighting was installed in Tokyo the next electrical innovation was the construction of an electrical tramway in the old imperial city of Kyoto. The Japanese public has scarcely been aware of the remarkable progress made in the last two or three years so the exhibition was a sort of revelation to them.

The exhibition was divided into several departments. In the first were shown the domestic uses of electricity. These covered a wide range, including motors for families, boilers, electric heaters, and all the other devices used by Japanese families.

In the second department, there was a demonstration of the use of electrical power in manufacturing. The electro-chemical industry is a comparatively new business in Japan which has grown out of a demand created by the war in Europe. A decade ago Japan's only lines of manufacturing in which electricity was used were electrical copper refining and galvanizing. Hydro-electric plants have been established in many places in recent years and according to the latest reports the electro-chemical industry in Japan at present covers the manufacturing of sulphate of ammonia and carbide, the extraction of nitrogen from the air, the electrical refining of copper, iron, and other metals, the manufacture of compound metals, the production of alkalies, etc.

Excluding small private plants, it is estimated that there were at the end of 1916 fifty electro-chemical works in Japan. Their manufactures in 1915 were valued at more than Yen 56,000,000. It is estimated that the output has since been doubled. In the following table the figures upon the production of various articles in 1915 are based upon the latest official reports.

Carbonate of lime	Yen	1,273,037
Carbide and sulphate of ammonia		3,411,734
Phosphorus		188,802
Copper		38,336,740
Gold		7,008,976
Silver		2,798,584
Zinc		1,072,513
Steel		127,500
Chloride of potassium		1,810,810
Carbon bisulphide		14,185
Caustic soda, bleaching powder and others ..		75,565

Among the large firms represented at the exhibition were the Ibigawa Electric Power Co., the Electric Steel Works, the Toyo Alkali Company, the Hodogaya Alkali Works, the Japan Chemical Industry, the Japan Nitric Fertilizer Company, the Electric-Chemical Industry Company, the Yasugi Steel Works, the Japan Electricity Works and others.

The third department of the exhibition covered telegraphy, telephony, and wireless telegraphy. These services in Japan are under Government control, so private engineers exhibited as producers of machinery and apparatus only. The first telegraph service in Japan was opened between Tokyo and Yokohama in 1871. Development since then has been rapid and now even small towns and villages in the most remote districts have their telegraph systems. Telephones were not installed in Tokyo until nearly twenty years later and even now the Japanese telephone service is the subject of constant criticism and complaint. According to the latest official report there are now 5,997 telegraph offices and 4,173 telephone exchanges in Japan and in the Japanese colonies and leased territories in China. The demand for telephones is much greater than the supply and people are compelled to pay from fifteen hundred to two thousand Yen for the installation of an instrument. Japan now controls ten wireless stations and the Government is experimenting with a wireless telephone system which will be installed if successful.

Among the manufacturers of telegraphic and telephonic machines and supplies who were represented at the exhibition were the Kyoritsu Electric Apparatus and Cable Manufacturing Co., the Tokyo Gas and Electric Engineering Co., the Japan Electricity Co., the Oki Electric Works, the Annaka Electric Engineering Works, the Japan Wireless Electric Apparatus Manufactory, and the Suwa Engineering Co. In this department there were also exhibits prepared by the Department of Communications and the Imperial Universities, including numerous charts and diagrams, a miniature wireless station and wireless telephone devices.

The advance made by Japan during the last three decades in electric lighting and the use of power in running trains, trams, and in experimenting with air craft has been particularly rapid and four departments of the exhibition were devoted to developments along this line. Power was formerly generated in Japan with steam or gas but recently, with Government encouragement, much progress has been made in the use of water power.

In April the Department of Communications reported that the total amount of power in use was 1,011,185 kilowatts, these figures including the estimated power of newly completed plants. Water power plants in actual use supply 416,385 kilowatts and steam power plants in actual use 118,908 kilowatts. Water power plants under construction will supply 317,131 kilowatts, and steam power plants under construction 158,759 kilowatts.

The increase in power during the past year has been 73,184 kilowatts in water power and 83,184 kilowatts in steam power. In Japan there are 687 plants supplying power, of which number 597 supply to industrial plants and the general public, while 42 run railways and tramways. The investments in these plants total Yen 731,641,869, which figure does not include money borrowed.

It was reported in March, 1917, that the total mileage of Japan's tramways was 1,321 miles, on which 4,417 cars were operated, including 369 cars without motors.

The use of electric lamps is steadily increasing. 3,051,925 families use electric lamps and the number of lamps in use reaches 7,536,930. The average annual increase in lamps in use is stated to be 7.8 per cent.

The use of electricity as motive power by industrial plants has especially increased since the war began to stimulate Japanese industrial circles to fresh activity. The following table, reproduced from an official report gives an idea of how industrial men make use of electricity in Japan:

Industries	Motors in use	Power consumed
Dyers and weavers	9,288	79,008 H.P.
Ironworks and machine shops	12,014	158,387
Chemical works	3,525	67,661
Foodstuff producers	19,850	45,071
Mine operators and others	3,197	122,888
Others	8,586	54,234

As power suppliers and tramway operators the Tokyo Electric Light Company, the City of Tokyo, the Osaka Electric Light Company, and others occupy leading positions. The requirements of these plants are more than well supplied by Japanese electrical engineers who can also turn out a great variety of machinery operated with power.

According to last year's official report, the total value of articles produced amounted to Yen 36,065,739, at least as far as the authorities could ascertain; particulars being as follows:

Electrical machinery and parts	Yen	14,320,402
Electric lamps	,,	4,422,160
Electric wires and cables	,,	17,323,177

Among the best known plants producing those articles were the Shibaura Engineering Works, the Tokyo Electric Company, the Oki Electric Engineering Company, the Tokyo Gas and Electric Engineering Company, the Japan Electric Industry Company, the Japan Electric Lamp Company, the Teikoku Electric Lamp Company, the Hidachi Engineering Works of the

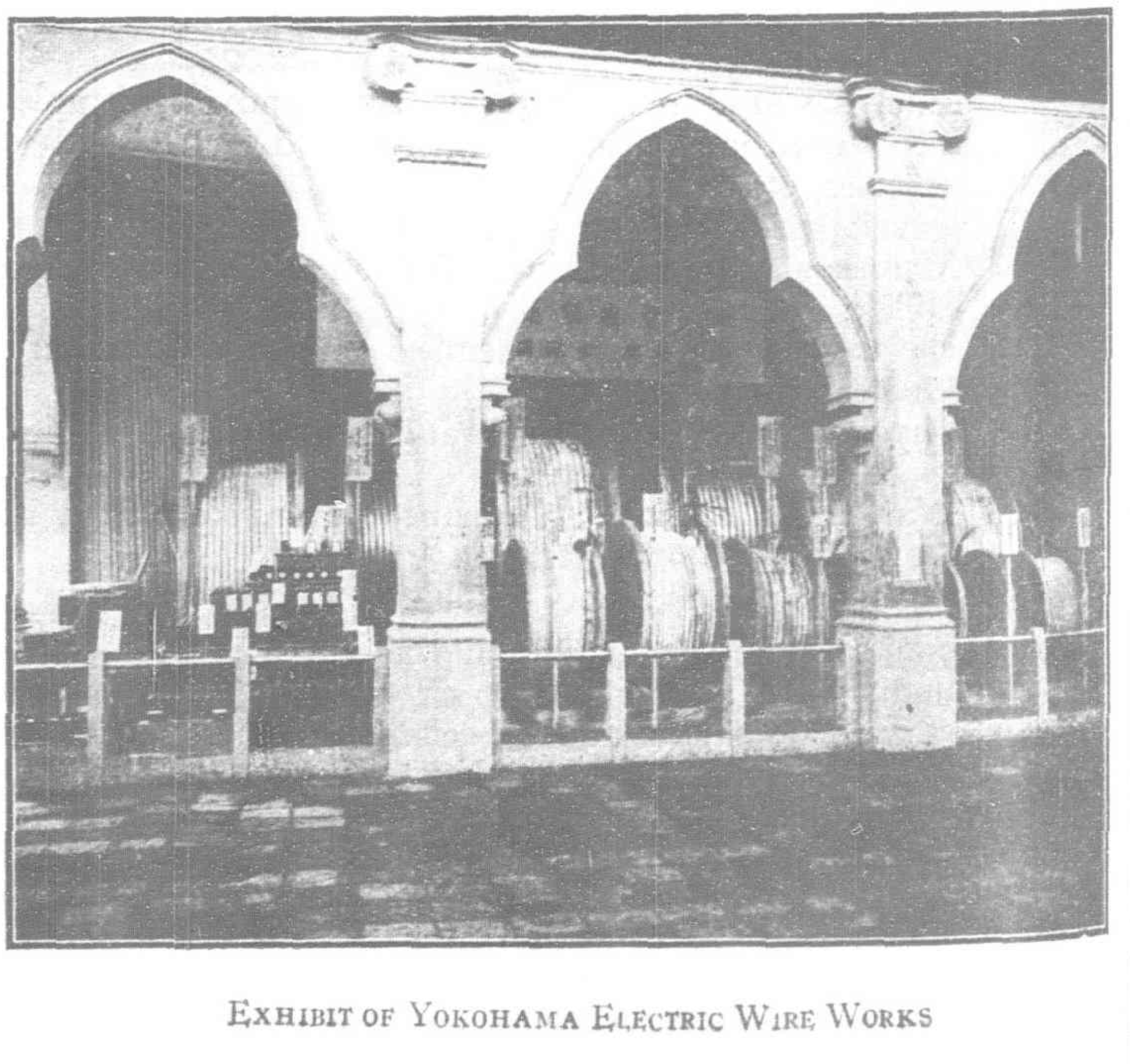


Exhibit of Yokohama Electric Wire Works

Kuhara Mining Company, the Tozai Electric Company, the Japan Dry Battery Company, the Kawakita Electric Industry Company, the Mitsubishi Shipbuilding Yard and Engine Works, the Japan Steel Tube Company, the Kwasaki Dockyard Company, the Oana Electric Engineering Works, the Okumura Electric Company, the Meidensha, the Tokyo Electric Engineering Works, the Tokyo Metre Manufactory, the Yasukawa Electric Engineering Works, the Koishikawa Works, the Engineering Works of the Osaka Electric Light Company, the Yokohama Electric Wire and Cable Manufacturing Company, Furukawa & Co., the Fujikura Electric Wire and Cable Manufacturing Co., the Sumitomo Electric Wire and Cable Manufacturing Co. and others. All of them have been well represented at the Electrical Exhibition and their exhibits cover the whole range and variety of electric appliances machinery and other allied articles.

Part of their products are exported abroad by Japanese engineers even at present. The export of electric machinery and apparatus, including wires and cables, has increased as shown in the following table prepared by the Department of Communications:

Years	Yen
1912	730,204
1913	1,070,799
1914	1,121,552
1915	2,079,750.

Among their buyers were China, British India, the Dutch East Indies, French Indo-China, the Straits Settlements, Asiatic Russia, the Philippines, Siam, Australia, the United States, Great Britain, and several other countries. Even Germany bought cables and wires, and some other articles from Japan before the war.

In the meanwhile Japan's import of electrical machinery and apparatus, or materials used in producing them, has fallen off steadily, quite in keeping with the development of those lines in Japan as shown in the following table:

Year	Value of imports
1912	Y. 16,748,579
1913	12,085,272
1914	8,768,519
1915	5,188,891

In other departments of the exhibition the recent developments in the use of electricity has also been shown, together with the results of researches by learned institutions. Particularly, electrical apparatus used in medical practice are well made, and it is fully demonstrated that Japanese medicos can now confidently rely on Japanese electric engineers to supply their needs.

Modern Banking in Japan

(From the Seventeenth Financial and Economic Annual of Japan, 1917)

The modern system of banking in Japan dates from the promulgation of the National Banks Regulations in November, 1872. Banks of every description have since then been created in quick succession; and now the credit establishments for agriculture, industry, commerce, and various other enterprises have been brought into full working order, their actual number being 2,165 at the end of April, 1916. These banks are divided by their nature into two classes; namely, those which have been established under the general banking laws, and make it their object to facilitate the general circulation of capital, and those which, having been created under special banking laws, have special objects and functions.

In 1872, the Government promulgated the National Banks Regulations, which were modeled on the National Bank Act of the United States of America, and provided for the conversion of the national bank notes into specie. An amendment was made in 1883 in the National Banks Regulations, by which the privilege of issuing notes was taken away from the national banks and granted exclusively to the newly-created Bank of Japan, and suitable measures for the redemption of the national bank notes were taken.

Meanwhile, private banks and bank-like companies which did not come within the purview of the National Banks Regulations had increased in number until in 1884 their total number reached 954, and there were no general provisions to control such banks and companies beyond their subjection to the control of the local authorities. To bring them under more efficient control, the Ordinary Banks Regulations and the Savings Banks Regulations were promulgated in 1890 and put in force three years later.

Ordinary banks are placed under the control of the Minister of Finance, whose license is required for the establishment of a new bank or the amalgamation of existing banks; he is also empowered to order at any time investigation into the business condition and property of a bank. Every bank must each half year prepare and present to the said Minister a balance sheet and other business reports and publish the balance sheet in newspapers or by other means. Provisions also are made in the Regulations with regard to business hours and holidays.

Savings Banks, whose business is to take charge of the deposits made by the public at compound interest, must be joint-stock companies. Their directors are jointly under unlimited liability with respect to the obligations of the bank incurred during their term of office, and upon the lapse of full two years after their retirement therefrom they are released from such liability.

Savings Banks must, as guarantee for repayment of savings deposits, provide themselves with interest-bearing national or local loan bonds corresponding in value to at least one fourth of the deposits received and place them in the Deposit Section of the Department of Finance. If, however, the said guarantee fund reaches an amount equal to at least one half of the capital, commercial bills and reliable companies' debentures and shares may be used. Any alteration in the articles of association of a savings bank or any change in the kind and method of its business must be previously approved by the Minister of Finance.

When a bank (1) receives a sum of less than five Yen as a deposit at a time, (2) takes deposits periodically or several times within a certain period by fixing beforehand the time of repayment, or (3) receives money periodically or several times within a certain period under a promise to pay a certain sum of money at a certain period, it may be regarded as a bank transacting the business of a savings bank.

In other respects the regulations for ordinary banks are also applicable to savings banks.

Side by side with these private banks, the national banks acted from the first as financial organs of general trade. When the terms of their respective charters expired, most of them continued business as private banks, and by February, 1899, national banks ceased to exist, so that there is no longer any difference in economic functions and legal nature between the former national banks and other private banks, all of which are now subject to the general banking laws.

The above statements refer to ordinary banks, but there exist in addition such special banks as mentioned hereunder, each of which was created by special law.

The Bank of Japan

The Bank of Japan (Nippon Ginko), the central bank of the country, was established in 1882 as a joint-stock company. Its authorized capital, which was at first Yen 10,000,000 (£1,024,275), was increased three times, and now stands at Yen 60,000,000 (£6,145,652), of which Yen 37,500,000 (£3,841,032) has been paid up.

This Bank is privileged to issue bank notes against gold and silver coins and bullion, and further to issue such notes on security of Government bonds and Treasury bills, and other bonds and commercial bills of a reliable nature, the maximum amount of the latter notes being Yen 120,000,000 (£12,291,304). In case of necessity, the Bank may be allowed to issue notes beyond the maximum above-mentioned which, however, are subject to a tax of at least five per cent per annum.

The business carried on by the Bank is principally (1) to discount or purchase Government bills, bills of exchange, and commercial bills; (2) to buy or sell gold and silver bullion; (3) to make loans on security of gold and silver coins and bullion; (4) to collect bills for banks, companies, and merchants, who are its regular customers; (5) to receive deposits and to accept the custody of articles of value, such as gold, silver, and other precious metals, and documents; and (6) to make advances in current accounts or loans for fixed periods on security of Government bonds, Treasury bills, and other bonds and shares guaranteed by the Government. The Bank is, in addition, entrusted with the management of the Treasury receipts and disbursements.

The Yokohama Specie Bank

The Yokohama Specie Bank (Yokohama Shokin Ginko) was founded in 1880 with an authorized capital of Yen 3,000,000 (£307,233) with the object of affording financial facilities in respect of the foreign trade of this country. Subsequently, its capital was increased several times and now stands at Yen 48,000,000 (£4,916,522), of which Yen 30,000,000 (£3,072,826) has been paid up.

The business carried on by the Bank consists of (1) foreign exchange; (2) inland exchange; (3) loans; (4) deposits of money and custody of articles of value; (5) discount and collection of bills of exchange, promissory notes, and other securities; and (6) exchange of coins. The Bank may also buy or sell public bonds, gold and silver bullion, and foreign coins, if so required by the condition of its business. It may also be entrusted with matters relating to foreign loans and with the management of public money for international account. Besides, the Bank is authorized to issue bank notes convertible into silver coins in Kwangtung province and China since 1906 and also to issue the notes in Kwangtung province for the period of five years from July, 1913, which are to be convertible into gold coins or the notes of the Bank of Japan.

The Hypothec Bank of Japan

The Hypothec Bank of Japan (Nippon Kwangyo Ginko) was created for the purpose of making long-term loans at a low rate of interest on mortgage of immovable property. Its authorized capital is Yen 40,000,000 (£4,097,101) which has been fully paid up.

The business of the Bank is principally (1) to make on mortgage of immovable property loans which shall be redeemable by annual instalments within a period not exceeding fifty years, or at a fixed term of not more than five years, provided in the latter case the total amount of such loans does not exceed one tenth of the total amount of loans redeemable by annual instalments, and provided, also, that the amount of loans made on security of residential land or buildings, other than sites or buildings belonging to factory foundations or factories, which lie in localities where the City Organization Law is in force or in city land to be designated by Imperial Ordinance shall not exceed one half of the total amount of the paid-up capital and mortgage debentures issued; (2) to make loans without security to Prefectures, Districts, Cities, Towns, Villages, and other public corporations organized by law; (3) to make loans without security redeemable at a fixed term or by annual instalments in cases of the adjustment of arable land under the law for such adjustment; (4) to make loans without security redeemable within a fixed term or by annual instalments to industrial, fishery, forestry, or stock-breeding guilds, or associations of such guilds; (5) to take up agricultural and industrial debentures issued by agricultural and industrial banks which have been established in accordance with the Agricultural and Industrial Banks Law; (6) to make loans redeemable by annual instalments on security of the claim on loans redeemable by annual instalment that are issued by these agricultural and industrial banks and of the mortgage in security for such loans; and (7) to take deposits and take custody of gold and silver bullion and negotiable papers, provided, however, that the total amount of deposits shall not exceed the total amount of paid-up capital. Finally, the Bank may employ the deposits and the money lying idle in the course of its business in the following manner only: (a) to purchase with a sum equal to not less than one fourth of the deposits national loan bonds or negotiable papers approved by the Minister of Finance or to deposit it in the Deposit Section of the Department of Finance or in a bank approved by the Minister of Finance; and (b) to discount bills or make short-term loans on the security of the above-mentioned negotiable papers or agricultural or marine products or industrial manufactures.

The Hypothec Bank is authorized, when at least one fourth of its nominal capital has been paid up, to issue mortgage debentures to an amount not exceeding ten times its paid-up capital, provided the amount of such debentures shall not exceed the total amount of outstanding loans redeemable by annual instalments and the agricultural and industrial debentures in hand. These debentures may be redeemed with premiums by means of drawings taking place at least twice a year in amounts proportionate to the amount to be redeemed in the same year of the loans redeemable by annual instalments and agricultural and industrial debentures in hand. In case any loans redeemable by annual instalments are repaid before they are due, the Bank may with the amount so repaid purchase and redeem its mortgage debentures.

The Industrial Bank of Japan

The Industrial Bank of Japan (Nippon Kogyo Ginko) is a joint-stock company with an authorized capital of Yen 17,500,000 which has been fully paid up. Just as the Hypothec Bank is intended to furnish long, low-interest loans on mortgage of immovable property, so the Industrial Bank makes it its special object to handle bonds and shares of various kinds.

The business carried on by the Industrial Bank is (1) to make loans on pledges of national and local loan bonds and companies' debentures and shares; (2) to subscribe for or take up national and local loan bonds and companies' debentures; (3) to receive deposits of money and accept the custody of articles of value; (4) to engage in trust business; (5) to discount bills; (6) to engage in the business of bills of exchange; (7) to make loans on security of a foundation created as prescribed by law; (8) to make call-loans or loans for a fixed term on security of sites and buildings belonging to factories or of residential land and buildings lying in localities where the City Organization Law is in force or in city land to be designated by Imperial Ordinance, provided, however, that the total amount of such loans shall not exceed one half the amount of the paid-up capital; and (9) to purchase national or local loan bonds or companies' debentures and shares or gold and silver bullion with money lying idle in the course of its business. The term of loans made by the Bank cannot exceed five years, except in the case of special necessity.

The Bank is authorized to issue debentures to an amount not exceeding ten times its paid-up capital, provided, however, the amount of such debentures shall not exceed the total amount of outstanding loans, discounted bills, and national or local loan bonds, companies' debentures and shares and gold and silver bullion in hand. Only in the event of funds being required for enterprises for public benefit undertaken in a foreign country may the Bank, with the approval of the Minister of Finance, issue debentures irrespectively of the above-mentioned restriction

Agricultural and Industrial Banks

The Agricultural and Industrial Banks (Noko Ginko) are local financial organs for furnishing long-term loans at a low rate of interest on security of immovable property and, being established in every prefecture, are most useful through their connection with their central organ, the Hypothec Bank of Japan.

The Agricultural and Industrial Banks are joint-stock companies, each having a capital of not less than Yen 200,000 (£20,486). Each of these Banks has as a general rule for its exclusive business district the whole of Hokkaido or a prefecture.

The business carried on by Agricultural and Industrial Banks is principally (1) to make on mortgage of immovable property loans which shall be redeemable by annual instalments within a period not exceeding thirty years, or on security of immovable property or fishery rights loans for a fixed term of not more than five years, provided that in the latter case the total amount of such loans does not exceed one fifth of the total amount of loans redeemable by annual instalments, and that the amount of loans made on security of residential land or buildings, other than sites or buildings belonging to factory foundations or factories, which lie in localities where the City Organization Law is in force or in city land to be designated by Imperial Ordinance shall not exceed one fourth of the total amount of the paid-up capital and mortgage debentures issued, but such loans made in localities to be specially designated by Imperial Ordinance may be increased to three-fourths of the total amount of the paid-up capital and mortgage debentures issued; (2) to make similar loans, but without security, to Cities, Towns, Villages, and other public corporations organized by law; (3) to make loans without security redeemable at a fixed term of not more than five years to a party of at least twenty persons combined with joint liability, who are engaged in agriculture or industry; (4) to make loans without security redeemable by annual instalments within thirty years or within a fixed term of not more than five years to guilds for the adjustment of arable land in case arable land is to be re-adjusted under the law for such adjustment; (5) to make loans without security redeemable by annual instalment within a period not exceeding thirty years or at a fixed term of not more than five years to industrial, fishery, forestry or stock-breeding guilds, or associations of such guilds; and (6) to take deposits and take custody of gold and silver bullion and negotiable papers, provided, however, that the total amount of deposits other than fixed deposits shall not exceed the amount of paid-up capital. Finally, they may employ the deposits and the money lying idle in the course of their business in the following manner only: (a) to purchase with a sum not less than one fourth of the deposits national loan bonds or negotiable papers approved by the Minister of Finance or to deposit it in the Deposit Section of the Department of Finance or in banks approved by the Minister of Finance; and (b) to discount bills or make short-term loans on security of the above-mentioned negotiable papers or agricultural and marine products or industrial manufactures, provided, however, that fixed deposits not included in the amount above referred to and equivalent to not less than one fourth of the deposits may be employed for making loans redeemable by annual instalments or within a fixed term. Agricultural and Industrial Banks may become agents for the Hypothec Bank, and when acting as agents for loans made by the Hypothec Bank, they may guarantee to the bank the solvency of the debtors. They may also take charge of the receipt and disbursement of the funds of their respective prefectures.

The Banks are authorized, when at least one fourth of the nominal capital has been paid up, to issue agricultural and industrial debentures to an amount not exceeding five times the paid-up capital; such debentures, however, must not exceed the balance of the total amount of outstanding loans redeemable by annual instalments after deducting therefrom that part thereof which has been given as security for money borrowed from the Hypothec Bank. The face value of agricultural and industrial debentures which was at first not less than twenty Yen, is now reduced to ten Yen and upward; and when debentures of not more than twenty Yen face value are to be issued, such issue may be effected by sale. For this purpose a term must be fixed for the sale, and the amount sold within that term is taken as the amount of issue. These agricultural and industrial debentures must be redeemed by means of drawings at least twice a year in amounts proportionate to the amount thereof to be redeemed in the same year.

The Hokkaido Colonial Bank

The Hokkaido Colonial Bank (Hokkaido Takushoku Ginko) was established with the object of supplying capital for enterprises for colonizing and exploiting Hokkaido and Karafuto, and especially for the purpose of facilitating the supply of capital by making loans on security of agricultural products and companies' shares and debentures as well as by making long-term loans at low interest on immovable property. The bank has a capital of Yen 5,000,000 (£512,138), which has been fully paid up.

The business of the Bank is (1) to make on security of immovable property loans redeemable by annual instalments within a period not exceeding thirty years or on security of immovable property or fishery rights loans redeemable within a fixed term not exceeding five years; (2) to make loans on pledges of the shares and debentures of joint-stock companies which have for their object the colonization and exploitation of Hokkaido and Karafuto, and to subscribe for or take up the debentures of such companies; (3) to deal in bills of exchange and documentary bills, and to make loans on security of agricultural and marine products of Hokkaido and Karafuto; (4) to receive deposits and accept the custody of objects of value; (5) to discount bills; (6) to engage in trust business; (7) to act as agent for other banks; (8) to make loans on security of goods and merchandise necessary for industry, which are stored in the warehouses established for the purpose of storing chiefly the agricultural and marine products of Hokkaido and Karafuto; (9) to make loans without security redeemable by annual instalments or at a fixed term to public corporations in Hokkaido; (10) to make loans without security redeemable at a fixed term of not more than five years to a party of at least twenty persons combined with joint liability, who are engaged in agriculture or industry; (11) to make loans without security redeemable by annual instalments or within a fixed term to industrial, fishery, forestry, or stock-breeding guilds or associations of such guilds; (12) to make loans without security redeemable by annual instalments or within a fixed term to guilds for the adjustment of arable land in case arable land is to be readjusted under the law for such adjustment; (13) to make short-term loans with the deposits on security of national loan bonds or negotiable instruments which have been approved by the competent minister of state; and (14) to purchase national or local loan bonds or companies' debentures with money lying idle in the course of its business. The total amount, however, of loans mentioned in (2), (3), (5), (8), and (13) shall not exceed two thirds of that of the loans mentioned in (1) and (9). The Bank is, moreover, permitted, with the approval of the Minister of Finance, to carry on in Karafuto banking business other than those mentioned above.

The Bank is authorized to issue debentures of not less than ten Yen face value to an amount not exceeding five times its paid-up capital; such debentures, however, must not exceed the total amount outstanding of the loans on mortgage of immovable property which are redeemable by annual instalments; and when debentures of not more than twenty Yen face value are to be issued by the Bank, such issue may also be effected by sale. These debentures must be redeemed by means of drawings at least twice a year in amounts proportionate to the amount of the said loans to be redeemed in the same year.

The Bank of Taiwan

The Bank of Taiwan (Taiwan Ginko) is a joint-stock company with an authorized capital of Yen 20,000,000 (£2,048,551), of which Yen 12,500,000 (£1,280,344) has been paid up.

The business of the Bank is (1) to discount bills of exchange and other commercial bills; (2) to deal in bills of exchange and documentary bills; (3) to collect bills for merchants who are its regular customers; (4) to make loans on securities of a reliable nature; (5) to receive deposits and accept overdrafts; (6) to accept the custody of articles of value, such as gold and silver coins, precious metals and documents; (7) to buy or sell gold and silver bullion; (8) to purchase at the convenience of its business national loan bonds, local loan bonds, Hypothec Bank debentures, Agricultural and Industrial Banks debenture or Industrial Bank debentures; (9) to act as agent for other banks; and (10) to engage in trust business.

The Bank is privileged to issue bank notes of one Yen and upward, which are at any time convertible into gold Yen. It is required to hold as conversion reserve gold and silver coins and bullion of the same amount as the notes issued; the amount of notes not covered by this specie reserve is limited to Yen 10,000,000 (£1,024,275); they may be issued on security of Government paper money and securities, notes of the Bank of Japan, and other bonds and commercial bills of a reliable nature. Notes issued beyond this limit are subject to a tax of not less than five per cent per annum.

The banks above described, namely, the Yokohama Specie Bank, the Bank of Japan, the Industrial Bank of Japan, the Agricultural and Industrial Banks, the Hokkaido Colonial Bank, the Bank of Taiwan, and the Hypothec Bank of Japan, are, as has already been described under their respective heads, banks established, each with its own special object, under Government protection. While they are subject to more or less restrictions due to the objects for which they were respectively established, they enjoy on the other hand privileges more or less profitable, which amply compensate them for the disadvantages of their limited field of business. They are at the same time under special Government control.

China's New Parliamentary Law

Regulations Framed by the Conservatives to Hobble the Untamed Legislator

The various sessions of the Chinese Parliament, which have always ended in the collapse of that body's prestige and privileges, have convinced the Northern conservatives, otherwise known as the Militarists, that if another legislative body must be permitted to assemble in Peking it must be organized on very different lines from the old one. The first step taken in framing the following law was therefore that of reducing the number of the senators and representatives so that there would be fewer to argue while in conclave and fewer to deal with in case they had to be dealt with. The second step was that of assigning to the Northern provinces a sufficient share of the membership so that if the South did not see fit to approve of the new laws and did not send either senators or representatives, the North could produce a quorum.

The nominally representative body which framed these new regulations was assembled by Premier Tuan Chi-jui last autumn from such provinces as were not in a state of rebellion and was assigned no other duties or powers than that of drawing up the text of this document, which was promulgated by presidential mandate, February 17, 1918. The present elections for the Parliament which is to elect a successor to President Feng Kuo-chang are being held according to the provisions of this document and, while neither the law itself nor the elected representatives will be recognized by those provinces in the South which have refused to participate, a new Parliament along Northern lines will probably be the outcome, if there is no sudden and radical change in the political situation.

The New Law

ARTICLE 1. The Parliament of the Republic of China shall be composed of the following two Houses:

1. The Senate.
2. The House of Representatives.

ARTICLE 2. The Senate shall be composed of the following Members:

1. One hundred thirty-eight Members elected by the local Electoral Colleges.
2. Thirty Members elected by the Central Electoral College.

ARTICLE 3. The House of Representatives shall be composed of Members elected by the people of the different localities.

ARTICLE 4. The number of Members of the House of Representatives to be returned by the local Electoral Colleges shall be based on the population, one member to be returned by every 1,000,000. A Province with a population under 7,000,000 shall elect seven members. A Special Administrative District with a population under 1,000,000 shall be entitled to elect one member:

Chihli, 23 Members; Fengtien, 11 Members; Kirin, 7 Members; Heilungkiang, 7 Members; Kiangsu, 27 Members; Anhwei, 18 Members; Kiangsi, 24 Members; Chekiang, 26 Members; Fukien, 16 Members; Hupeh, 18 Members; Hunan, 18 Members; Shantung, 22 Members; Honan, 22 Members; Shansi, 17 Members; Shensi, 14 Members; Kansu, 10 Members; Sinkiang, 7 Members; Szechwan, 22 Members; Kuangtung, 20 Members; Yunnan, 15 Members; Kueichow, 9 Members; Metropolitan Peking, 4 Members; Jehol, 3 Members; Chahar, 2 Members; Suiyuan, 1 Member; Szechwan Borders, 2 Members.

ARTICLE 5. Members shall be elected by Mongolia, Tibet, and Chinghai according to the following list:

Mongolia, 19 Members; Tibet, 7 Members; Chinghai, 2 Members.

ARTICLE 6. The term of office of Members of the Senate shall be six years, but every two years one in three of the total number shall be changed.

ARTICLE 7. The term of office of Members of the House of Representatives shall be three years.

ARTICLE 8. The President and Vice President of both the Senate and the House of Representatives shall be elected by the Members from among themselves.

ARTICLE 9. No person shall be a Member of the two Houses at the same time.

ARTICLE 10. The opening or closing of a session shall be at the same time for both Houses.

ARTICLE 11. A Session of the Parliament of the Republic shall last four months, but it may be extended if necessary.

This extension of the session may not be for more than two months.

ARTICLE 12. Business shall be transacted separately in the two Houses.

The same bill may not be introduced in the two Houses at the same time.

ARTICLE 13. A decision of the Parliament of the Republic shall be that which has been approved by the two Houses.

A Bill which has been thrown out by one House may not be introduced again in either House in the same session. This rule, however, does not apply to joint resolutions.

ARTICLE 14. Before the adoption of a permanent constitution of the Republic, the provisions in the Provisional Constitution governing the powers and duties of the National Assembly shall apply to the Parliament of the Republic; but the two Houses may deal with the following matters separately:—

1. Resolutions.
2. Interpellations.
3. Requests for investigation and punishment of officials for bribery and breaches of the law.
4. Replies to questions put by the Government.
5. Receiving petitions from the people.
6. Permitting the arrests of Members.
7. Adopting regulations for the Houses themselves.

Estimated and Executed Budgets must first be voted upon by the House of Representatives.

ARTICLE 15. In both Houses the presence of more than half of the total membership shall constitute the quorum.

ARTICLE 16. A decision may not be made unless more than one half of the Members present approve it. If the noes and ayes are equal in number, then the decision shall be made by the President.

ARTICLE 17. Article 19, Clause 11 and 12 and Article 23 of the Provisional Constitution governing quorum and votes shall be applicable to the Parliament of the Republic.

Article 21 of the Provisional Constitution shall be similarly applicable.

ARTICLE 18. Articles 25 and 26 of the Provisional Constitution relating to Members of the Senate shall apply to Members of both Houses.

ARTICLE 19. The annual payment of Members of the two Houses and other public expenses shall be regulated by a separate law.

ARTICLE 20. The first draft of the Constitution of the Republic shall be made by an equal number of deputies elected from among the Members of both Houses.

ARTICLE 21. Debates as to the Constitution of the Republic shall be held by both Houses in joint session.

At these joint sessions the President of the Senate shall be the Chairman, and the President of the House of Representatives shall be the Vice Chairman. The presence of two thirds each of the total number of Members of the two Houses shall constitute a quorum, and no decision shall be made unless carried by a three fourths vote of all the Members present.

Article 22. This law shall take effect from the date of its promulgation.

The Senate Election Law

Promulgated by Presidential Mandate, February 17, 1918

CHAPTER I.—GENERAL PROVISIONS

Article 1. Members of the Senate shall be elected according to the various headings provided in Article 2 of the Parliamentary Organization Law.

Article 2. Electors and mutual electors of members of the Senate shall be governed by the provisions of this present law.

Article 3. Any male citizen of the Republic of China above 30 years of age and having the qualifications prescribed under the different Chapters of this law and there not being any of the circumstances mentioned in Article 5 of the Law for Election of Members of the House of Representatives may be an Elector of Members of the Senate.

Any male citizen of the Republic of China above 35 years of age and having the qualifications prescribed under the different Chapters of this law, there not being any of the circumstances mentioned in Article 5 of the Law for the Election of Members of the House of Representatives, may be elected a Member of the Senate, but citizens of Mongolia, Tibet, Chinghai, and Turkestan shall not be elected unless they are thoroughly versed in the Chinese written and spoken languages.

Article 4. The right of the electing and of being elected a member of the Senate shall be regulated by Articles 6 and 7 of the Law for Election of Members of the House of Representatives.

Article 5. The date for election of members of the Senate shall be fixed by mandate.

Article 6. The secret single-name ballot system shall be employed at all elections.

Article 7. No election shall take place unless two-thirds of the total number of electors are present.

Article 8. The person receiving one third of the total number of votes shall be the one who is elected. If the number of successful candidates is not sufficient, then another ballot shall be held and this shall be repeated until the required number is reached.

Article 9. After the required number of successful candidates is reached, the same number of alternates shall be elected and the number of votes required in this shall be the same as is provided in the above Article.

If more receive the full number of votes required for election than there are candidates, the number above that number shall be alternates.

Article 10. The names of successful candidates and of the alternates shall be placed in the order of precedence according to the number of votes received by them. In case of equal number of votes the order shall be decided by casting lot.

Article 11. The full names of and the number of votes received by the successful candidates and the alternates shall be posted on the spot by the Superintendent of Election. The Superintendent of Election shall also at the same time communicate the result to the successful candidates.

Article 12. After receipt of the communication the successful candidates shall within 20 days make a reply to say whether he will accept the election or not. If no reply is made within the period it will be considered that he has declined the election. But in the case of places with which communication is difficult the period may be extended 15 days.

Article 13. If same successful candidates decline to accept the election the alternates shall fill the vacancy according to their order of precedence.

Article 14. To those who have been elected members of the Senate at the second election of the local Electoral College and the mutual election of the Central Electoral College and who have accepted the election, the Superintendent of Election shall give a Certificate of Membership of the Senate, and shall prepare a full list of the successful candidates for the purpose of reporting to the Ministry of the Interior.

Article 15. When a vacancy occurs among the members of the Senate it shall be filled in accordance with the provisions of Article 13.

Article 16. Alternates are entitled to fill vacancies until the next regular election.

Article 17. In case of members of the Senate elected for the first time, after the opening of the session. their term of office according to Article 6 of the Parliamentary Organization Law shall be divided into 3 classes by lot; the first class shall be changed after two years, the second after four years, and the third at the end of the term of office. Thereafter one class shall be changed at the end of every two years. If the number of members cannot be divided into three equal classes, the old number shall belong to the third class.

Article 18. A retired member of the Senate, if reëlected, may continue in office (as a member of the Senate).

Article 19. Matters relating to voting, opening of the ballot, examination of the ballot, change of elections, and litigation concerning elections which are not dealt with by this present law shall be dealt with according to the provisions of the Law for the Election of Members of the House of Representatives.

CHAPTER II.—LOCAL ELECTORAL COLLEGES

Article 20. Any one having one of the following qualifications may be an elector of the First Election of a Local Electoral College.

(1) A graduate of a University or College or any one having similar qualifications, having been in government service for three years, or having been a president or teacher of some university, college, or middle school for the same length of time, or being an author of some scholarly dissertation or scientific invention which has been approved by the Government Ministry concerned;

(2) Any one who has been for three years a "recommended" official or for one year a "directly appointed" official or who has received a "title of merit";

(3) Any one paying direct taxes of more than $100 a year or having real property of the value of $5,000 or over.

Article 21. In each Province the District Magistracy shall be the First Electoral District for the Local Electoral College.

Article 22. In each Magistracy every thirty electors of the First Election having one of the qualifications mentioned in Article 20 may elect among themselves a candidate for the Second Election. If a Magistracy has less than thirty, but more than three electors, it shall also be entitled to elect one candidate.

Article 23. Articles 8, 9, and 10 of Chapter 1 shall apply to these successful candidates and alternates elected in the First Election.

Article 24. The District Magistrate shall be the Superintendent of the First Election.

Article 25. The balloting place of the First Election shall be the place where the District Magistrate has his official residence.

Article 26. The date of the First Election shall be decided by the Superintendent of the Second Election.

Article 27. The Superintendent of the First Election shall depute inspectors from the district under his jurisdiction to ascertain the names of those who have the required qualifications in order to compile a register of electors. Detailed regulations governing this inspectorate service shall be drawn up by the Superintendent of the First Election.

Article 28. The register of electors shall contain the names, ages, birthplaces, and places of residence of electors and qualifications mentioned in Sections 1, 2, and 3 of Article 20.

Article 29. Sixty days before the date of the First Election the register of electors shall be completed and sent with a report by the Superintendent of the First Election to the Superintendent of the Second Election.

Article 30. The Superintendent of the First Election shall publish the register of electors sixty days before the date of the First Election.

Article 31. In case of any mistake or omission the person concerned may within five days after the publication of the register of electors produce proof thereof and request the Superintendent of the First Election to rectify it.

In the above case of request for rectification the Superintendent of the First Election shall decide the matter within five days from the date of receiving the petition.

Article 32. After the period allowed after publication of the register has expired the matter is to be considered as settled, and no further request for rectification shall be entertained.

After the Superintendent of the First Election has given his decision he shall send the rectified register of electors together with a supplementary report to the Superintendent of Second Election.

ARTICLE 33. After the register of electors has been settled it shall be preserved at the place of ballot and the Superintendent of the Second Election shall report the total number of electors to the Minister of the Interior.

ARTICLE 34. The announcement of the names and the certificates of successful candidates of the First Election shall be governed by the Law for Election of Members of the House of Representatives.

ARTICLE 35. The number of members of the Senate elected by each Province shall be as follows:

(1) Each Province—five members.

(2) Each Special Administrative District—one member.

ARTICLE 36. The Local Electoral College in each Province shall be established at the place of official residence of the highest administrative official in the Province.

ARTICLE 37. The highest administrative official in each Province shall be the superintendent of the Second Election of the Local Electoral College in each Province.

The balloting place of the Second Election shall be fixed by the Superintendent of the Second Election.

ARTICLE 38. The Local Electoral Colleges of Mongolia and Chinghai shall be composed of the Princes, Dukes, and Hereditary Nobles of the Mongolian Banners.

For the sake of convenience the above mentioned Electoral Colleges may be established at the place where the Central Government is situated.

ARTICLE 39. The number of members of the Senate elected by the Mongolian and Chinghai Local Electoral Colleges shall be as follows:

Mongolian—fifteen members.

Chinghai—two members.

ARTICLE 40. The Superintendent of the Local Electoral Colleges of Mongolia and Chinghai shall be the chief administrative official of the place where the Electoral College is situated, of the Captain-General as a Chogolgan or the President of the Board of Mongolian and Tibetan Affairs.

The balloting place shall be fixed by the Superintendent of Elections.

ARTICLE 41. The Local Electoral College of Tibet shall be organized by the proper officials selected by the chief administrative official resident in Tibet together with the Dalai Lama and Panshen Lama.

For the sake of convenience the above-mentioned Electoral College may be established as the place where the Central Government is situated.

ARTICLE 42. The number of members of the Senate elected by the Local Electoral College of Tibet shall be six.

ARTICLE 43. The Superintendent of the Local Electoral College of Tibet shall be the chief administrative official resident in Tibet or the President of the Board of Mongolian and Tibetan Affairs.

The balloting place shall be fixed by the Superintendent of Elections.

CHAPTER III.—CENTRAL ELECTORAL COLLEGE

ARTICLE 44. The Central Electoral College shall be organized by those having any one of the following qualifications:

(1) A graduate of a Government University or a foreign University who has held a post by reason of his special knowledge for a period of three years, or who has been a president or professor of some Government University for the same length of time, or who is the author of some scholarly dissertation or scientific invention which has been approved by the Government Ministry concerned;

(2) A retired President or Vice President of the Republic, a retired Minister of the Cabinet, or any one who has been a "specially appointed" official for a period of more than one year or is the recipient of a first, second, or third class "title of merit";

(3) Those who pay direct taxes amounting to more than $1,000 per annum or who carry on agricultural, manufacturing, or mercantile business proved at the proper office to be of the value of more than $1,000,000.

(4) Chinese living abroad who possess property proved before the Consul to be of the value of more than $1,000,000;

(5) Any Manchu Prince or Duke who has had political experience.

(6) Any Mohammedan Prince or Duke who has had political experience.

ARTICLE 45. The numbers of members of the Senate mutually elected by each class in the Central Electoral College shall be as follows:

Class 1.—10 members.
Class 2.— 8 members.
Class 3.— 5 members.
Class 4.— 4 members.
Class 5.— 2 members.
Class 6.— 4 members.

ARTICLE 46. The Central Electoral College shall be established at the place where the Central Government is situated.

The Minister of Education shall be the Superintendent of Election of the First Class.

The Minister of the Interior shall be the Superintendent of Election of the Second and Fifth Class.

The Minister of Agriculture and Commerce shall be Superintendent of Election of the Third and Fourth Class.

The President of the Board of Mongolian and Tibetan Affairs shall be the Superintendent of Election of the Sixth Class.

The balloting place shall be fixed by the proper Superintendent of Elections.

ARTICLE 47. The qualification of each class of mutual electors in the Central Electoral College shall, eighty days before the date fixed for balloting, be severally inspected by officials appointed for the purpose or the chief provincial administrative official or a consul living abroad authorized for the purpose by the Superintendent of Elections. Forty days before the date fixed for balloting, the register of electors shall be completed and published. Detailed regulations governing this inspectorate service shall be drawn up by the proper Superintendent of Elections.

ARTICLE 48. In case of any mistake or omission the person concerned may within twenty days after the publication of the register of mutual electors of the Central Electoral College produce proof thereof and request that it be rectified; but when this twenty days' limit has expired the matter shall be considered as settled and no further request for rectification shall be entertained.

In case of the above-mentioned request for rectification the proper Superintendent of Elections shall give his decision within five days of receiving the petition.

CHAPTER IV.—SUPPLEMENTARY REGULATIONS

ARTICLE 49. Detailed regulations for putting this Law into force shall be drawn up under a Presidential Mandate.

ARTICLE 50. This Law shall take effect from the date of its promulgation.

House of Representatives Election Law

DIVISION I.—GENERAL PROVISIONS

ARTICLE 1. Members of the House of Representatives shall be severally elected in accordance with the provisions of Articles 4 and 5 of the Parliamentary Organization Law.

ARTICLE 2. The date of the General Election of members of the House of Representatives shall be fixed by Presidential Mandate; but the dates of the changing of elections or of supplementary election shall be fixed by the Superintendent of the Second Election or the Superintendent of the Mongolian, Tibetan, or Chinghai Elections, and shall be reported to the Minister of the Interior, who shall report to the President.

ARTICLE 3. Every male person who is a native of the Republic of China and not less than twenty-five years of age who has resided within the electoral district for a period of not less than two years preceding the compilation of the register of electors and who has one of the following qualifications, may be an elector of members of the House of Representatives:

(1) A person who pays direct taxes of more than $4 per annum;

(2) A person who possesses real property of the value of more than $1,000, but in the case of Mongolia, Tibet, and Chinghai the estimate shall be made on personal property;

(3) A graduate of a primary school or higher scholastic institution;

(4) A person possessing qualifications equal to those of a primary school or higher scholastic instruction.

ARTICLE 4. Every male person who is a native of the Republic of China and not less than thirty years of age may be elected a member of the House of Representatives; but in the case of Mongolia, Tibet, and Chinghai, the elected shall be confined to those who are well versed in the Chinese written and spoken languages.

ARTICLE 5. In case of any one of the following circumstances a person shall be disqualified to be either an elector of members or an elected member of the House of Representatives:

(1) One who has been deprived of his rights as a citizen and has not recovered them;

(2) One who is an undischarged bankrupt;

(3) One who is insane or an idiot;

(4) One who is an illiterate.

ARTICLE 6. In case of the following persons the power of electing on being elected shall be suspended:

(1) Those holding official posts or posts in the Police Service;

(2) Those in the Navy or Army;

(3) Those who are studying in schools;

(4) Those who are Buddhist, Taoist, or other religious teachers.

Section 4 of this Article shall not apply to Mongolia, Tibet, or Chinghai.

ARTICLE 7. The power of being elected shall be suspended in the case of teachers in primary schools.

ARTICLE 8. Managers of elections shall have their power of being elected suspended within their electoral district; but this rule shall not apply to inspectors nor, in the cases of Mongolia, Tibet, and Chinghai, to managers of elections.

DIVISION II.—ELECTION OF MEMBERS IN PROVINCES AND SPICIAL ADMINISTRATIVE DISTRICTS

CHAPTER I.—ELECTORAL DISTRICTS AND MANAGERS OF ELECTIONS

SECTION 1.—ELECTORAL DISTRICTS

ARTICLE 9. The District Magistracy shall be the Electoral District for the First Election. The Tao or the Special Administrative District shall be the Electoral District for the Second Election.

ARTICLE 10. In cases where the boundaries of the administrative district are changed the Electoral District shall be changed to correspond with it, but the originally-elected member shall not thereby be deprived of his post.

SECTION 2.—MANAGERS OF ELECTIONS

ARTICLE 11. The General Superintendent of Elections in each Province shall be the chief administrative official of that Province and shall have control of all electoral matters in that Province.

ARTICLE 12. In First Electoral Districts—the District Magistrate shall be appointed Superintendent of First Elections and shall have control of all matters relating to First Elections.

ARTICLE 13. In Second Electoral Districts the Taoyin or the chief administrative official of a special administrative district shall be appointed Superintendent of Second Elections and shall have control of all matters relating to Second Elections.

ARTICLE 14. Inspectors and managers of the balloting and of the opening of the ballot shall be appointed by Superintendents of the First and Second Elections respectively for these elections. The inspectors shall be appointed only from among the electors of the Electoral District.

ARTICLE 15. The duties of the Managers of the balloting shall be as follows:

(1) To have charge of the opening and closing of the place for balloting.

(2) To accept or reject ballots.

(3) To control the ballot boxes, ballot registers, ballot papers, and register of voters.

(4) To maintain order in the balloting place.

(5) To arrange any other matters connected with the duties of those in charge of the balloting which are prescribed by this present law.

ARTICLE 16. The duties of those in charge of the opening of the ballot shall be as follows:

(1) To control the opening and closing of the place for opening the ballot.

(2) To count the number of votes.

(3) To examine whether the ballot-papers are genuine.

(4) To decide whether the votes have been cast according to the regulations.

(5) To preserve the votes.

(6) To maintain order in the place for opening the ballot.

(7) To manage any other matters connected with the duties of those in charge of the opening of the ballot which are prescribed by this present law.

ARTICLE 17. The Inspectors of balloting and of the opening of the ballots shall oversee the Managers of balloting and of the opening of the ballots respectively in their discharge of their duties.

In case there is any disagreement in opinion between the Inspectors and the Managers, the matter is to be referred to the Superintendent of Elections for decision.

ARTICLE 18. The offices of the Superintendents, Inspectors, and Managers are all honorary, but they may receive reimbursement of expenses incurred in connection with their duties.

CHAPTER II.—FIRST ELECTIONS

SECTION 1.—BALLOTING DISTRICTS

ARTICLE 19. The Superintendent of First Elections shall, according to the local conditions, demarcate the district under his jurisdiction into so many balloting districts.

ARTICLE 20. The limits of the balloting districts shall be fixed by the Superintendent of First Elections eighty days before the date of the First Election. After he has reported on this to the Superintendent of Second Elections and they are in agreement on the matter they shall report to the General Superintendent.

SECTION 2.—REGISTER OF ELECTORS

ARTICLE 21. The Superintendent of First Elections shall appoint Inspectors to examine into the validity of qualifications of the electors in the district under his jurisdiction and compile a register of electors.

Detailed regulations for this inspectorate service shall be drawn up by the Superintendent of First Elections.

ARTICLE 22. The register of electors shall contain the names, ages, birthplaces, and places and length of residence as well as the particulars referred to in the two following paragraphs:

(1) The amount of direct taxes paid or the amount of real property possessed.

(2) The graduate's degree or qualifications equal to those of a graduate held.

ARTICLE 23. The register of electors shall be completed sixty days before the date of the First Election and shall be reported by the Superintendent of First Elections to the Superintendent of Second Elections and the General Superintendent.

ARTICLE 24. The Superintendent of First Elections shall draw up a register of electors for each separate balloting district and publish it in each balloting place sixty days before the date of the First Election.

ARTICLE 25. In case of any mistake or omission the person concerned may within five days from the date of publication of the register of electors request the Superintendent of First Elections to rectify it.

In the event of the above-mentioned request for rectification the Superintendent of First Elections shall give his decision within ten days of the date of receiving the petition.

ARTICLE 26. When the period allowed after the date of publication has expired no further request for rectification shall be entertained.

After the Superintendent of First Elections has given his decision and made the rectification he shall send the rectified register with a supplementary report to the Superintendent of Second Elections and the General Superintendent.

ARTICLE 27. After the register of electors has been settled a copy shall be preserved in both the balloting place and the place for opening the ballot and the General Superintendent shall report the total number of electors to the Ministry of the Interior.

SECTION 3.—THE NUMBER OF CANDIDATES TO BE ELECTED IN THE FIRST ELECTION

ARTICLE 28. The number of successful candidates in the First Election shall be fifty times as many as the Members of the House of Representatives who are to be elected. To fix this number for each Second Electoral District, the Superintendent of the Second Election shall multiply by fifty the number of Members his district is entitled to, and then he shall apportion this number to the First Electoral Districts within his jurisdiction.

ARTICLE 29. The apportioning of the candidates to the First Electoral Districts shall be done as follows:

The Superintendent of the Second Election shall divide the total number of electors in his district by the total number of candidates allotted to his district, and the dividend shall represent the number of electors who may elect a candidate. Divide the total number of electors in each First Electoral District by this dividend, and the result is the number of candidates to be allotted to the said First Electoral District.

When the number of electors of a First Electoral District is smaller than the above-mentioned dividend, or when, after being divided by the dividend, a surplus of electors are left over, and therefore the candidates cannot be all apportioned, then the candidates left over shall be allotted to those First Electoral Districts which have the largest surpluses. In case the surpluses of two or more Districts are equal, then the allotment shall be decided by lot.

After the apportionment of the number of candidates to the different First Electoral Districts has been made, the Superintendent of the Second Elections shall publish it in the Districts ten days before the date of the First Election.

SECTION 4.—NOTICES OF ELECTIONS

ARTICLE 30. The Superintendent of First Elections shall issue the notice of the election forty days before the date of the First Election. It shall contain the following particulars:

(1) The date of the First Election.

(2) The place of balloting, and the place for opening the ballot, of the First Election.

(3) The system of voting.

SECTION 5.—BALLOTING PLACES AND PLACES FOR OPENING BALLOTS

ARTICLE 31. One balloting place shall be established in each Balloting District. One place for opening the ballot shall be established in the place where the Superintendent of First Elections resides. The place shall be decided by the Superintendent of First Elections.

ARTICLE 32. Order shall be maintained in the districts surrounding the balloting places and places for opening the ballot by adding to the number of policemen stationed therein.

ARTICLE 33. With the exception of election officials, voters, and police no one shall be allowed to enter the balloting places or places for opening the ballot.

If there is not sufficient room for those admitted to the place for opening the ballot, the manager shall limit the number to be admitted at one time.

ARTICLE 34. The balloting places and places for opening the ballot must be removed within fifteen days after the date of balloting and the date of opening the ballot.

ARTICLE 35. The balloting places shall be open from 8 a.m. to 6 p.m.; after the latter hour no one shall be allowed to enter.

ARTICLE 36. Detailed regulations for the management of the balloting places and places for opening the ballot shall be drawn up by the Superintendent of the First Election.

SECTION 6.—BALLOT PAPERS, BALLOT REGISTERS, AND BALLOT BOXES

ARTICLE 37. Ballots shall be prepared by the Superintendent of the Second Election according to the prescribed form, and thirty days before the date of First Election they shall be sent to the Superintendents of the First Election. The Superintendents of the First Election shall send them to the balloting places seven days before the date of the First Election.

ARTICLE 38. The Superintendent of First Elections shall compile a ballot register showing the number of electors of each balloting district and send a ballot box of the regulation type to each balloting places seven days before the date of the First Election.

ARTICLE 39. The ballot register shall contain the names, ages, birthplaces, and places of residence of the Electors.

ARTICLE 40. Except when being used for balloting, ballot boxes shall be strictly kept under lock and seal.

SECTION 7.—BALLOTING, OPENING THE BALLOT, AND CHECKING THE VOTES

ARTICLE 41. Voters shall be limited to those whose names appear on the official register of the balloting places.

ARTICLE 42. On the day of the election voters must proceed in person to the balloting place and themselves record their votes.

ARTICLE 43. On receiving their ballot papers voters must first inscribe their signatures opposite their names in the ballot register.

ARTICLE 44. Each voter shall receive one ballot paper.

ARTICLE 45. In voting the secret single-name ballot system is to be used.

ARTICLE 46. Whilst in the balloting place voters shall not converse with any one beyond any necessary conversation with the election officials concerning the procedure in voting.

ARTICLE 47. After recording their votes voters shall immediately withdraw.

ARTICLE 48. If a voter is guilty of impersonation or any other breach of the regulations the Managers and Inspectors shall order him to quit the premises.

ARTICLE 49. The Managers and Inspectors shall make a joint report on the ballot and send it together with the ballot box, on the day following that on which the ballot was closed, to the place for opening the ballot, and also report to the Superintendent of the First Election.

ARTICLE 50. The Superintendent of First Elections on the same day following that on which the ballot was closed (and the ballot box sent to him) shall fix a time, which he shall publicly announce, and when it comes shall proceed in person to the place for opening the ballot to superintend the opening of the ballot, and shall publicly announce the result of the balloting.

ARTICLE 51. When checking the number of votes the number cast must be compared with (the number on) the ballot register.

ARTICLE 52. In any one of the following circumstances the votes shall be considered as void:

(1) When they are not filled according to the prescribed form.

(2) When other things are written on the tickets, but the insertion of a candidate's profession or place of residence shall not be included in this prohibition.

(3) When the writing is illegible.

(4) When the votes are not written on the ballot papers of the balloting place.

(5) When the person voted for is not on the register of names of electors.

ARTICLE 53. The Managers and Inspectors of the place for opening the ballot shall make a joint report on the opening of the ballot and forward it on the day following that on which the ballot was closed to the Superintendent of First Elections.

All the votes, the valid and the void being put up separately, shall be sent to the Superintendent of the First Election, and shall be preserved by him until the next regular election.

SECTION 8.—THE NUMBER OF VOTES REQUIRED FOR ELECTION

ARTICLE 54. The number of votes required for election in the First Election shall be one third the number of electors who are entitled to elect one candidate.

ARTICLE 55. Should the votes be not sufficient to elect the candidates, or should the number of candidates elected be less than the number allotted, the Superintendent of the First Election shall make a list of twice as many names as there are candidates yet to be elected, from those who have received the largest number of votes below the required minimum. This list shall be made public, and another balloting shall be held three days after the publication at the original balloting place; and the same process shall be repeated until the required number of candidates are elected.

ARTICLE 56. If a person receives the required number of votes, but cannot become a candidate because the allotted member of candidates has been already obtained, he shall thereby become an alternate.

ARTICLE 57. The order of the successful candidates as well as of the alternates shall be arranged according to the number of votes they receive, where more than one person receive the same number of votes, their order shall be fixed by lot. In case more than one balloting have been held the different sets of men elected shall be arranged according to the precedence of their election.

SECTION 9.—NOTICE AND CERTIFICATES TO BE GIVEN TO THE ELECTED CANDIDATES

ARTICLE 58. When the candidates of the First Election have been elected the result shall be announced immediately and the Superintendent of First Elections shall severally inform each successful candidate.

ARTICLE 59. A successful candidate of the First Election within five days of receiving this announcement shall send a reply stating whether he is willing to accept the position or not. Those who do not reply within the time limit shall be considered as being unwilling to accept it.

Vacancies caused by persons who refuse the First Election shall be filled by Alternates of the First Election in order of succession.

ARTICLE 60. Candidates elected at the First Election shall receive from the Superintendent of the First Election a certificate of election at the First Election.

ARTICLE 61. The certificates of elections shall be prepared by the Superintendent of the Second Election according to the prescribed form, and shall be sent to the Superintendents of the First Election twenty days before the date of the First Election.

ARTICLE 62. After the certificate of election has been sent the names of the elected candidates shall be published and reported to the Superintendent of the Second Elections.

ARTICLE 63. After receipt of the certificate the elected candidate at the First Election shall be paid by the Superintendent of First Elections his expenses for proceeding from the place of the First Election to that of the Second Election.

CHAPTER III.—SECOND ELECTIONS

ARTICLE 64. The Second Election shall be held at place where the Superintendent of Second Elections resides, and the elected candidates of the First Election shall proceed thither.

ARTICLE 65. The register of electors at the Second Election shall be limited to the elected candidate of the First Election and shall be compiled according to the consecutive order of the First Electoral Districts. Besides the particulars mentioned in Article 22, it shall record the number of votes received by these candidates in the First Election.

ARTICLE 66. Candidates to be elected in the Second Election shall not be limited to the electors themselves; that is, to the successful candidates of the First Election.

ARTICLE 67. The number of members to be elected by each Second Electoral District shall on each occasion be determined by the General Superintendent by distributing the number of members for the whole province according to the total number of electors on the register of each Second Electoral District.

ARTICLE 68. The apportionment of candidates to the Second Electoral Districts shall be as follows:

The General Superintendent of Elections for the whole province shall divide the total number of electors for the Second Election (that is, total number of successful candidates elected in the First Election), as shown on the registers, by the total number of Members of the House of Representatives to be elected in his province, and the dividend shall represent the number of electors who may elect a Member of the House. Divide the total number of electors (for the Second Election) in each Second Electoral District by this dividend, and the result is the number of Members to be allotted to the said Second Electoral District.

When the number of electors of a Second Electoral District is smaller than the above-mentioned dividend, or when, after being divided by the dividend, a surplus of electors are left over, and therefore the Members to be returned cannot be all apportioned, then the Members left over shall be allotted to those Second Electoral Districts which have the largest surpluses. In case the surpluses of two or more Districts are equal, then the allotment shall be decided by lot.

After the apportionment of the number of Members to be elected to the different Second Electoral Districts has been made, the General Superintendent of Elections of the Province shall notify the Superintendents of the Second Election thirty days before the date of the First Election.

ARTICLE 69. The Superintendents of the Second Election shall publish notices of election thirty days before the date of the Second Election, which notices shall include the following particulars:

(1) Date of the Second Election.
(2) The balloting place for opening the ballot of the Second Election.
(3) The system of voting.
(4) The number of Members to be elected at the Second Election.

ARTICLE 70. The balloting place and place for opening the ballot shall be fixed and detailed regulations for managing the Second Election drawn up by the Superintendent of Second Election.

Matters relating to the balloting place and place for opening the ballot shall be regulated by the provisions of Articles 32 to 35.

ARTICLE 71. Ballot papers, ballot registers, and ballot boxes shall be similar to those used at the First Election.

ARTICLE 72. The balloting, opening of the ballots and checking of the votes shall be regulated by the provisions of Articles 41 to 52 (Clauses 1 to 4 of Article 52) and Article 53.

ARTICLE 73. In the Second Election the total number of voters shall be divided by the total number of members to be elected in the District and half of the dividend shall represent the number of votes to be cast. If the number of votes cast for a person is less than this number he shall be elected.

ARTICLE 74. Should the number of votes obtained by candidates be insufficient so that no person is elected or if the number of elected candidates is insufficient then the Superintendent of Second Elections shall summon the voters to the original balloting place to vote over again until the required number is obtained.

ARTICLE 75. After the election of candidates from the Second Election has taken place a number of Alternates of the Second Election equivalent to the number of members for that District shall be elected. The number of votes to be cast shall be regulated by the provisions of Article 73.

If a person at the Second Election receives the required number of votes, but cannot be an elected candidate because the total number of candidates allotted to the District have already been elected, he shall thereby become an alternate.

ARTICLE 76. The order of names of elected candidates and alternates at the Second Election shall be governed by the provision of Article 57.

ARTICLE 77. When the elected candidates and alternates of the Second Election have been elected the result shall be announced immediately and the superintendent of Second Election shall severally inform each elected candidate of the Second Election and each elected candidate of the Second Election within twenty days of receiving the notification shall send a reply stating whether he is willing to accept the position or not. Those who do not reply within the time limit shall be considered as being unwilling to accept it; but where communications are difficult the period may be prolonged by fifteen days.

ARTICLE 78. Vacancies caused by persons who refuse to agree to be elected candidates of the Second Election shall be filled by Alternates of the Second Election in order of succession.

ARTICLE 79. Candidates elected at the Second Election shall receive from the Superintendent of Second Election a certificate of election to membership of the House of Representatives.

ARTICLE 80. When the certificate of membership has been given the Superintendent of Second Elections in each province shall make a report on all the circumstances connected with the election and send it with the register of votes, the valid and void ballot papers, and the register of members to the General Superintendent, who shall preserve them during the period of the current election year. The General Superintendent shall collect all the registers of all the provinces and report to the Ministry of the Interior.

In special administrative districts the balloting registers and ballot papers above-mentioned shall be kept by the Superintendent of Second Election. He shall collect the registers of members in those districts and report to the Ministry of the Interior.

The registers of members shall contain the names, ages, and birthplaces of members, and the number of votes obtained by them.

ARTICLE 81. When a vacancy occurs in the membership the Superintendent of Second Election shall instruct the Alternate of the Second Election next on the list to fill it.

ARTICLE 82. When an Alternate of the Second Election receives the notice to fill the vacancy he shall answer within twenty days whether he is willing to accept the position or not; if he does not reply within the time limit he shall be considered as being unwilling to accept it, but in places where communications are difficult the period shall be extended by fifteen days.

When the Alternate of the Second Election has agreed to fill the vacancy the Superintendent of the Second Election shall give him a certificate of membership of the House of Representatives.

ARTICLE 83. The period for the Alternate of the Second Election to fill the vacancy shall expire at the end of the term of office of members.

CHAPTER IV.—CHANGING OF ELECTIONS

SECTION 1.—INVALID ELECTIONS

ARTICLE 84. In case of any one of the following circumstances the election shall be regarded as invalid:

(1) When it has been judicially decided that the register of electors contains a defect affecting the whole number on the register.

(2) When it has been judicially decided that there has been a breach of the regulations governing the management of the election.

ARTICLE 85. The rules laid down in the preceding Article shall apply to both First Election and Second Election. When First Election is invalid the Second Election shall also be considered invalid.

SECTION 2.—DISQUALIFIED CANDIDATES

ARTICLE 86. In case of any one of the following circumstances the candidate shall be disqualified:

(1) When it has been judicially decided that the elected candidate had not the required qualifications.

(2) When it has been judicially decided that the required number of votes were not all *bona fide* votes.

ARTICLE 87. When a candidate is disqualified and the candidate's certificate has already been issued he shall be ordered to return it and his name together with the reason for disqualification shall be published.

ARTICLE 88. When a candidate is disqualified the alternate of the Second Election in the district in question shall be the candidate in order of succession.

SECTION 3.—GENERAL ELECTIONS, CHANGE OF ELECTION, AND SUPPLEMENTARY ELECTION

ARTICLE 89. A General Election shall only be held when all the Members of the House of Representatives shall be changed.

ARTICLE 90. When an election is invalid it shall be changed only in the Electoral District concerned.

ARTICLE 91. When there is a vacancy in the list of members, and in the Electoral District concerned there is no Second Electoral alternate, a supplementary election shall be held.

ARTICLE 92. Election affairs connected with change of elections or supplementary elections shall be arranged in accordance with the provisions of the rules laid down in this Division.

CHAPTER V.—LITIGATION CONCERNING ELECTIONS

ARTICLE 93. When an elector alleges that the managers of an election have been guilty of some irregularity or other conduct amounting to a breach of the regulations he may, reckoning from the day on which the election began, if it is a First Election, within five days institute proceedings in the local Court of Justice, and if it is a Second Election, within ten days institute proceedings in the High Court of Justice. Where there is no local Court of Justice the proceedings shall be instituted in the office of the proper official for deciding legal cases.

ARTICLE 94. When an elector alleges that the qualifications of a candidate are defective or that the number of votes is incorrect he may institute proceedings according to the rules laid down in the preceding Article.

ARTICLE 95. When an elector alleges that according to the number of votes he ought to have been elected and yet was not elected or an alternate alleges that there is an error in the order of names, he may institute legal proceedings in accordance with the rules laid down in Article 93.

ARTICLE 96. Judicial officials shall give election cases precedence over other cases.

ARTICLE 97. Appeals from the decisions rendered by the Courts of Justice mentioned in Articles 93, 94, and 95 may be made to some higher Court, but, in the case of First Election, the decision of the High Court of Justice shall be final.

DIVISION III.—ELECTION OF MEMBERS FOR MONGOLIA, TIBET, AND CHINGHAI

ARTICLE 98. The division of the Electoral Districts in Mongolia, Tibet, and Chinghai and the apportionment of members to them shall be as follows:

Cherim League	1 member.
Chosot'u League	1 ,,
Chao Uda League	1 ,,
Silinghol League	1 ,,
Ulan Ch'ap League	1 ,,
Ikh Chao League	1 ,,
T'ushet'u Khanate	1 ,,
Tsetsen Khanate	1 ,,
Sain-noin Tribe	1 ,,
Dzassakt'u Khanate	1 ,,
Urianghai Tribes	1 ,,
K'obdo	2 members.
Ch'ahar	1 member.
Kueihua Ch'eng T'umed Tribe	1 ,,
Alashan	1 ,,
Edsine	1 ,,
Old Turgut	1 ,,
Hasak	1 ,,
Anterior Tibet	4 members.
Ulterior Tibet	3 ,,
Chinghai	2 ,,

ARTICLE 99. The chief administrative official in each district shall be the Superintendent of Elections, and he shall have charge of all electoral affairs in that district. He shall appoint officials for managing the electoral affairs and determine their duties.

ARTICLE 100. The Superintendent of Elections shall appoint Inspectors to examine the qualifications of the electors to see if they are genuine and compile a register of electors.

The particulars to be recorded in the register of electors shall be those specified in Article 22.

ARTICLE 101. If the Superintendent of Elections allege that the inspections mentioned in the preceding Article cannot be applied throughout the whole district he shall apply them only in the place where he resides.

ARTICLE 102. When the Superintendent of Elections applies the inspection of election matters only in the place where he resides he shall publish the reason for the election, the qualifications of the electors, also in the districts under his jurisdiction outside that in which he resides, and fix a time limit and instruct the chief administrative official of each district to notify the inhabitants that any one with an elector's qualifications may (within that time) report himself at his office (as qualified to be an elector).

When the time limit for reporting has expired the chief administrative official of each district shall collect the reports and send them to the Superintendent of Elections.

Article 103. The Superintendent of Elections shall add the names of the electors who report themselves in accordance with the provisions of the preceding Article to the register of electors.

Article 104. Matters relating to publication and correction of registers of electors shall be governed by the provisions of Articles 24, 25, and Section 1 of Article 26.

Article 105. Before the date of the election the Superintendent of Elections shall send notice thereof to the chief administrative official and instruct him to publish it.

The above-mentioned notice shall contain the following particulars:

(1) Date of Election.

(2) Balloting place and place for opening the ballot.

(3) System of voting.

Article 106. The balloting place and place for opening the ballot shall be established at the place where the Superintendent of Elections resides.

If the Superintendent of Elections finds it convenient he may divide his Electoral District into several balloting districts and establish a balloting place in each district.

Article 107. Matters relating to balloting places and places for opening the ballot shall be governed by the provisions of Articles 32 to 36.

Article 108. The ballot papers, ballot registers, ballot boxes shall be governed by the provisions of Articles 37 to 40.

Ballots may contain writing in the local language in addition to Chinese writing.

Article 109. Balloting, opening the ballot, and checking the votes shall be governed by the provision of Articles 41 to 52, including clauses 1 to 4 of Article 52, and Article 53.

Article 110. The number of members elected in a district shall be the number who receive the most votes according to the number of members assigned to that district. If the number of elected candidates is insufficient the election shall be repeated until the required number is obtained.

Article 111. When the number of elected candidates is sufficient those who have received the most votes shall be alternates, the number of which shall be the same as the number of members. When the number of alternates is insufficient there shall be a reëlection according to provisions of the preceding Article.

Article 112. The order of names of elected candidates and alternates shall be governed by the provisions of Article 57.

Article 113. The notice and certificate to be given to members shall be governed by the provisions of Articles 76 and 78.

Article 114. After giving the certificate the Superintendent of Elections shall make a detailed report on the election and preserve it together with the ballot register, the valid and void ballot papers, and the register of members during the period of the current election year. He shall also compile a register of members and report to the Ministry of the Interior.

The register of members shall be governed by the provisions of Section 3 of Article 80.

Article 115. Matters relating to elected candidates who refuse to be members, vacancies in the list of members, and filling of vacancies by alternates, shall be governed by the provisions of Articles 77, 81, 82, and 83.

Article 116. Matters relating to invalid elections and disqualifications of elected candidates shall be governed by the provisions of Articles 84, 86, 87, and 88.

Article 117. Matters relating to change of elections and supplementary elections shall be governed by the provisions of Articles 90 and 91.

All electoral matters connected with changing of elections and with supplementary elections shall be governed by the rules laid down in this Division.

Article 118. When an elector alleges that the managers of an election have been guilty of some irregularity or other conduct amounting to a breach of the regulations he may within five days from the day on which the election began institute proceedings in the office of the proper official for receivings legal cases.

Article 119. When an elector alleges that the qualifications of a candidate are defective or that the number of votes is incorrect he may institute proceedings to the rules laid down in the preceding Article.

Article 120. When an elector alleges that according to the number of votes he ought to have been elected and yet was not elected or alternate alleges that there is an error in the order of names he may institute proceedings in accordance with the provisions of Article 118.

Article 121. Judicial decisions and appeals on election matters shall be governed by the provisions of Articles 96 and 97.

DIVISION IV.—SUPPLEMENTARY REGULATIONS

Article 122. Detailed regulations for putting this Law into force shall be drawn up under Presidential Mandate.

Article 123. This Law shall come into force on the date of its promulgation.

Law for Putting into Force the Election Law of Members of the House of Representatives (Second Election) for the Mongolian Tribes and Tibet Passed by the National Council and Issued by the President in Accordance with the Provisions of Article 30 of the Provisional Constitution.

Article 1. The second election of members of the House of Representatives for the four Mongolian Tribes and Tibet shall be held at the place where the central government is situated.

Article 2. The Superintendent of Elections for the four Mongolian Tribes and Tibet shall be the President of the Board of Mongolian and Tibetan Affairs.

Article 3. Detailed regulations governing elections shall be drawn up by the Superintendent of Elections.

Article 4. This law shall come into force on the date of its promulgation.

Finance Minister Shoda Surveys Japan's Wealth

In an address which was delivered by Mr. Kozue Shoda, the Finance Minister of Japan, at the general meeting of the bankers of the western part of Japan held in Osaka, in May, he emphasized the necessity of Japan's supplying her own steel requirements and consolidating her industries. Despite alarmist notes concerning the trade returns, he expressed the opinion that the economic condition of the country was sound. The decrease of the excess of imports in the first few months of the year as compared with the excess in the corresponding period of last year (whereas up to the middle of April last year, the excess of exports over imports was Yen 137,000,000, in the corresponding period of this year, the amount was only Yen 9,500,000. At first glance this seems to be a great disparity.) was due, Mr. Shoda said, to the increase of imports of cotton, machinery, wool, bean oil cakes, etc., which were necessary things for the development of Japan's industry. But the total amount of foreign trade of Japan was Yen 993.000,000, in that period this year, as compared with Yen 320,000.000 in the corresponding period of last year. He took the fact that the amount of capital invested in various industries in Japan increased from about Yen 280,000,000, to about Yen 586,000,000. a little more than double, as an indication of the prosperous economic condition which now obtains.

Mr. Shoda dwelt upon the need which existed for Japan to establish independence in the matter of supplies of necessaries, in order to be ready at any time in case of a national emergency. The national budget for 1918 included an appropriation for the extension of the Government Iron Foundry, raising of sheep for wool, extension of agricultural land, manufacture of fertilizers, and other necessaries. But he urged, in order to see that all these plans were put into execution, the officials of the Government and the people should coöperate. He regretted that whereas the law for industrial mobilization was made, the factories to which the law should be applied were not developed to a sufficient extent to allow the Government to reap the full benefits therefrom.

Mr. Shoda dwelt at length upon the need of Japan's improving the industries in which she was engaged, in order to be able to compete in the world's markets after the war, and advised his audience not to be satisfied with the petty, temporary success, which they may have attained during the war. They should see to it that the foundation of economic Japan was firmly laid.

Investment abroad was an important undertaking as a method of national development. Especially was the readjustment of the facilities for investment an important step. The Japanese Government, according to Mr. Shoda, laid special stress upon the readjustment of financial facilities for China, and of investments in that country, as a means of promoting the friendship between the two nations. Since the beginning of the European War the amount of Japanese investments in China only totaled about Yen 126,000,000. But the amount invested between 1917 and 1918 was about Yen 98,000,000. Judging from that fact, Mr. Shoda said that the activity of various Japanese banks in recent dates was phenomenal. But that was not enough. More should be done. Mr. Shoda, in this connection, paid tributes to the work now started by the Sino-Japanese Exchange Bank, which, he trusted, would produce favorable results in future in facilitating financial relations between the two nations.

To make investment abroad easier, the Japanese Government, upon the occasion of the reform of the law of the Industrial Bank of Japan, decided to guarantee the payment of principal and interest for the issue of the certificates of the bank to the extent of Yen 100.000.000. Besides, the Toa Kogyo Kabushiki Kaisha (Oriental Development Company) has recently increased its capital and expects to show its ability all the more as an organ for investment in China. Mr. Shoda urged that the company be freely made use of.

The Finance Minister made passing remarks about the work being done by other financial organs, about the service rendered by the special finance commission headed by Baron Megata to America, and the relation established between the Industrial Bank of Japan with American financial houses as to coöperation in investment in China.

By-Products of Christianity

It has been suggested to us by a valued reader that we might investigate and publish data upon the extent to which missionaries of various nationalities have been responsible for the introduction of exotic plants or small foreign industries to China. The missionary is chiefly recognized as an evangelist by the foreign public, and while he ranks first in that light in the eyes of the Chinese they also know him, as no one else recognizes him, as a potent agent for the betterment of conditions of life both in regard to home environment, food production, and the development of cottage and village industries. We find it difficult to obtain anything like an adequate idea of what the missionary body has done in China in this respect but we have been able to secure some indication, and on this foundation we hope to build up at some later time an article which will cover the material assistance given the Chinese by enterprising missionaries. In this connexion we would appeal to the various missionary bodies for information.

An industry which has gained world-wide attention and which was launched by missionaries is that of lace-making. At Chefoo, at Foochow, and other centers thousands of women and girls are now engaged in making lace and drawn-thread work from silk, cotton, grass cloth, etc. Lace-making was introduced to Chefoo about 1886 by Miss Fuller, daughter of the missionary who built the Chefoo lighthouse, who first taught art to the pupils in one of the schools for girls and to women, chiefly to find employment for the dependents of coolies who had emigrated to Manchuria, etc. The industry has now spread widely, the lace made in many homes and schools being shipped abroad in large quantities. In Foochow lace and drawn-thread work are also extensively made and what is now a valuable industry had its genesis in a foreign missionary school. In many other centers in China similar work is taught by the missionaries, and particularly in convents do we find great attention paid to this form of occupation for women and girl inmates, or those dependent upon the missionaries for their existence.

The large peanuts which form such a big item in the production list of Shantung and other provinces was first introduced to Shantung by the Rev. C. R. Mills. The result is that the small peanut has pretty well been supplanted, and apart from the peanuts that are grown and shipped abroad quite a large peanut oil industry has sprung up throughout the country.

Most of the temperate zone fruits that find their way to the foreign tables of cities in North China, Shanghai, Hongkong, etc., are from stock originally introduced from America and elsewhere by missionaries. About forty years ago the Rev. J. L. Nevins, D. D., brought from America and had planted near Chefoo 13 varieties of fine apples, 18 varieties of pears, nine of grapes, ten of cherries, nine of peaches, four of plums, two of prunes, as well as strawberries, raspberries, gooseberries, blackberries, and red and white currants. Dr. Nevins purchased a large tract of land in the suburbs of Chefoo and had it specially prepared, and thereon he taught a number of Chinese the methods by which fruit is grown in America. Now foreign fruit is grown not only in the original orchard but in many others widely separated as well as in other provinces. At the present time nearly every steamer leaving Chefoo for Shanghai and Tientsin in the season has its decks crowded with baskets of fruit.

At Hingping, in Shensi Province, the Rev. S. Bergstrom, of the Scandinavian Mission, introduced American cotton and American cattle while the Rev. W. N. Brewster, of the Methodist Episcopal Misson at Hinghwa, Fukien Province, established modern farming methods. The Rev. John Ross, of the Scottish Mission, introduced the pig bristles industry to Manchuria, and it is increasing in value annually.

In many other directions missionaries have also been active, and this is an aspect of their work which has been of great material value to the country and the people, but which receives but very little attention or recognition. When consideration is given to Chinese products, to methods of cultivation, etc., the work of missionaries cannot be overlooked or under-estimated. They have been a great force in inspiring the Chinese to give attention to improved methods and to new outlets for energy, and we would be glad to secure reports from various missionary bodies showing what has been done in this direction in various parts of the country.

Baron Sakatani on Currency Reform in China

INTERVIEWS WITH JAPANESE PRESS

Baron Sakatani, who has been touring in China with the object of investigating the currency situation in that country, as he has been requested to serve as financial adviser to the Chinese Government, returned to Japan in the latter part of June. On his way home he gave a number of interviews to the Japanese press. What he told in those interviews was not much different from what he has said in different parts of China where he has visited.

He holds in effect that whereas a gold standard is the ideal system, its introduction in China will lead, unless the ideas of the Chinese people regarding the relationship between paper currency and hard coins are changed, to hoarding. Even if gold reserves are maintained and the paper currency reformed, paper currency will lose its popularity. The Chinese do not realize the safety of properly controlled paper money and that it can be exchanged for hard coins at any time. They exchange paper money for coins as soon as they can.

As to the amount of silver coins circulated he could not obtain accurate statistics. But supposing that 400,000,000 people held coins to the value of two dollars (silver) on the average, the entire amount may be roughly estimated at $800,000,000, or even as much as $1,000,000,000. It is easier at present to maintain a silver standard system and for China to unify the currency. By means of education the ideas of the people as to paper currency should be elevated, thereby bringing about in due course of time an opportunity for shifting to a gold standard system.

Since it is difficult to take away from the military and civil governors of different provinces the financial powers which they possess and to concentrate those powers in the Central Government, Baron Sakatani advocated, as first steps toward the realization of the ideal of a gold standard system, that railways be built throughout China, roads repaired and improved, railway rates lowered in order to assist in the development of industry in general, and also the economic relationship between different localities be made closer. When these reforms shall have been accomplished, Baron Sakatani said, the financial unity in China can be secured without any trouble. The tax system in China is in such a condition that the Chinese cannot reform it by themselves at once. But to abolish the likin tax system and to adjust the local provincial tax systems, which are the sources of revenues for the provinces, is within the bounds of possibility.

The exchange values of different currencies in Manchuria and Mongolia are a problem as to which opinion is divided. China is a silver country, and if a gold standard system similar to that of Japan be applied the question will be, which is the more powerful, Gold or Silver? Baron Sakatani advocates that the two metals be left to fight out their own differences in the economic world of Manchuria and Mongolia.

To add to the currency complications in China, foreign paper moneys are in circulation in China. Baron Sakatani told how the Japanese Government authorities had puzzled their heads at the time they undertook to unify the currency of Japan in regard to driving out the foreign paper moneys which were in circulation in the early days of the Meiji Era (the period after the Restoration). It was then found that as soon as the currency system of Japan was adjusted the new moneys circulated well and the foreign moneys were driven away without any special effort being made to drive them out.

Baron Sakatani also deprecated the practice of the Chinese statesmen resorting to foreign loans, and said that he told the Chinese people what he thought about that practice. *They were indeed a source of China's ruination and downfall.* He illustrated this to the Chinese by citing as instances the history of Egypt and other downfallen countries. He appealed, he said, to the patriotism of the Chinese statesmen to consider the welfare of the country and to make personal sacrifices.

Baron Sakatani added in course of his several interviews that it will take ten years, in his opinion, to accomplish the task of reforming the Chinese currency from the time the work is started, at the expenditure of Yen 500,000,000. The currency reform loan of Yen 200,000,000 which the Chinese advocate, will not be sufficient for the purpose.

It is understood here that Baron Sakatani has his plan of currency reform in China, but that the details are not to be published until he shall have studied the question more carefully as to how his plans may be put into practice.

Those foreign residents in China in general and Peking in particular who regretted so deeply to see the splendid library collected by Dr. G. E. Morrison go to Japan, will be gratified to learn that the Chinese Social and Political Science Association of Peking has a project in hand to establish a library in the Capital. At a recent meeting of the Association it was announced that a sum of Taels 100,000 was to be set aside out of the remitted Indemnity Fund from America, and that a piece of land had been donated by the Imperial family near the Manchu Imperial Ancestral Temple, a central position, but a short distance from the Legation Quarter. The Taels 100,000 are to be invested in safe income-bearing bonds, the income to be used in furnishing and maintaining the library. The library is to be administered in trust for the educational institutions and the public by the Chinese Social and Political Science Association.

Mr. T. Kurachi (Vice-President of the Sino-Japanese Enterprise Co.), made a sensible statement recently with regard to Sino-Japanese enterprises. He said: "In my opinion, in launching an enterprise under Sino-Japanese management, the Chinese should not be grudged a full measure of confidence, which they really deserve, and due respect should be shown to the established business practices which do not stand in the way of efficient management."

" Out here you have the things that appeal irresistibly to the traveler. It is practically the only part of the world that is entirely different in its customs, scenes, climate and peoples. When the war is over the men and women of America will be glad to come to some place that will carry them away from the memory of the struggle and with proper advertising to back up the widespread publicity that has already been given it, a great and golden harvest of high class tourist travel can be reaped. This campaign must be ready soon after the end of hostilities, for then will come the desire to travel and to get away from the weariness of the war work, with which every one is engaged now. The time to prepare for this is the present and it is to this end that our people are looking the field over now." This is the opinion of Mr. James K. Steele, advertising manager of the Toyo Kisen Kaisha, who has recently been travelling in China.

Kailan Profits.—The report for year ended June 30 last states that the gross profit of the Kailan Mining Administration amounted to $5,776,338. After making provision for interest on the six per cent Kailan bonds, £66,960; redemption of bonds, £24,000; reserve for depreciation, $866,450; proportion of profit to which the Chihli Provincial Government is entitled, $181,220, there remains a net profit of $3,791,986, the company's proportion being $2,146,973. The amount brought to credit of profit and loss is £278,054, and with interest and other items £300,958. Deducting administration and other expenses in Europe, there remains a net profit of £291,562; £162,123 was brought forward, and deducting £42,031 for income tax, there remains £411,654. Balance dividend 7½ per cent, free of tax (making 12½ per cent for year). £286,654 forward, subject to excess profits duty. Business of the Kailan Mining Administration showed a slight increase, the total sales of coal amounting to 2,766,873 tons. Profits have been materially increased by the marked improvement in the rates of exchange.

Iron Foundry in Korea.—On April 29 the ceremony was held in the Mitsubishi Iron Foundry at Kyomipo, Korea, of the first lighting of the furnace. Mr. T. Wada, member of the House of Peers, Mr. Ogita, Director of the General Affairs Bureau, and Mr. S. Murata, Chief of the Mining Section, attended the ceremony among other guests. The foundry is the first of its kind in Korea, and will turn out 100,000 tons of iron a year.

Sino-Japanese Coal Mining Company.—Some years ago, Messrs. Shintaro Ohashi, Motojiro Shiraishi, Soichiro Asano, Heisaburo Okawa, Kobei Abe, Yeihachi Tanaka, and other leading industrialists of Japan organized a steamship company, called the Sino-Japanese Colliery Steamship Company (Nisshi Tanko Kisen Kaisha), with a capital of Yen 500,000. Later the company acquired a mining concession extending over 2,000,000 tsubo of bituminous coal deposits, at Chimentsai. The company recently decided to work that mine while at the same time working a coal mine called the Joban Coal Mine, in Ibaraki and Fukushima prefectures in Japan. The capital of the company will be increased to Yen 3,000,000. The shares have recently been distributed among those interested in the company, instead of inviting a general subscription from the public. The Japan Steel Tube Manufacturing Company secured 7,000 shares, Asano Cement Co., 6,000, Messrs. Ohashi, Shiraishi, Okawa, and Tanaka 1,500 each.

The Nisshi Tanko Kisen Kaisha expects to complete the work of starting the production of coal from Okamoto in the Joban district in Japan, and Chimentsai, Chihli, China, within a year and a half, and in the fifth year to produce the maximum amount of 120,000 tons from Okamoto and 300,000 tons from Chimentsai. When the second increase of capital is made the company expects to own steamships. Until then, they will charter steamers and ship their product paying freight rates, in order to have the output from Chimentsai transported.

Chinlingchen Iron Mine.—The latest intelligence about the operation of Chinlingchen Iron mine says that, although the negotiations once came to a rupture between the Tsingtao Garrison authorities and the representatives of the Japanese capitalists interested in the iron mine owing to the alleged excessiveness of the terms laid down by the authorities, the negotiations were resumed recently by the representatives of the Kuharas and the Okuras who had come to Tsingtao for the purpose. It is rumored that, by the abandonment of the proposed working of the mine under direct management of the Railway Department of the Tsingtao Garrison, it is to be operated on a joint investment of the Kuharas and the Okuras to the respective amounts of Y.1,500,000 and Y.1,000,000, says the *Manchuria Daily News*.

Anshan Steel Works and Iron Mine.—Mr. S. Kabayama (Director of the S. M. R. Co.), reports that things are really humming at the Anshan Steel Works colony (Manchuria). There might be now between 400 and 500 Japanese dwellings there. He says: The construction of the new Works is progressing satisfactorily. The Heating Stove has already passed its first stage. Work on the Smelting Furnace, the Coke Oven, etc., is going on as favorably. The first smelting furnace is to be ready for service about next September and the second one about next April. Machinery for the Electricity House is feared to be delayed more or less in arrival. The work of constructing the Waterworks was delayed by about a month owing to the rain, but has been making fair headway since. We hope to be able to put out our first sample of pig iron about next October. The road building work is far from being finished at the colony, and the roads are invariably put in a very miserable condition by a nasty rain. I had a look over the mining district, too. The construction of railway sidings to Yingtaoyuan and Takushan Iron Mines has also advanced well. In both cases the construction of the roadbeds themselves has been extended to the bases of the hills. With the siding for Yingtaoyuan, the laying of rails is nearly half over. For the remainder of the work, the arrival of rails on the ground will have to be awaited. The work in the direction of West Anshan is making good progress, too. The Government Steel Works, Edamitsu, with its annual total outputs of 300,000 tons, has developed the town of Edamitsu to what it is to-day. It will be easy to imagine what the Anshan Steel Works colony will be like when it gets ready to produce 500,000 tons of pig iron, etc.

First Pencil Factory in China.—The formal opening of the factory of the China Pencil Company, Ltd., took place at No. 1001 Ward Road, Shanghai, on June 27.

The company was first conceived last year by Messrs. Percy Tilley (chairman) and Frank W. White (secretary), and was incorporated at Hongkong as a British limited liability company for the manufacture of lead pencils and crucibles. The nominal capital is $100 000, consisting of 10,000 shares of $10 each, while the directors are Messrs. Percy Tilley, A. Black, Chan Chi Lan, Chang Yan Liang, R. S. Dougal, and S. M. S. Gubbay (managing director.)

The building covers 1¼ mow of land, and houses the furnace, graphite, working and painting rooms, with a private office. The machinery at present installed is of Japanese manufacture, and a Japanese expert is in charge of the factory. The output is estimated at 100 gross of pencils a day. The whole of the machinery is driven by electric power, and the staff will number 40. The opening ceremony was performed by Mr. H. H. Fox, British Commercial Attaché.

Agricultural Encouragement and Improvement in Korea

Agriculture being the principal occupation in Korea, eighty per cent of the whole population is engaged in agricultural pursuits. Agricultural products to-day aggregate nearly Y.300,000,000 in value, while they account for more than eighty per cent of the total export trade. Improvement in agriculture in Korea being of vital importance, Model Farms, a Cotton Planting Station, a Horticultural Station, Provincial Seedling Stations, Sericultural Training Stations, etc., have been established during several years past. From these stations better seeds, seedlings, and plants are being distributed among the agricultural classes. The farmers are further encouraged to correct their lack of knowledge by the distribution among them of improved tools, mulberry trees, silkworm eggs, etc. Technical experts were engaged by the central and local Governments with the object of encouraging local agriculture and industry, and for the proper guidance of the country people. Also improvement in irrigation has been encouraged. Competitive exhibitions of agricultural products were frequently held in order to stimulate improvement. The Koreans at first imagined that products submitted by them for exhibition would be confiscated, as was the practice under the old régime, and hesitated to send in their products. But the exhibits being duly returned to their owners, often with a prize awarded them, the country people are now quite eager to participate in such exhibitions. To those engaging in agricultural improvement, individuals or corporations, subsidies were often given out of the Local Levy Fund or State revenue. Abolition of the export duty on the principal agricultural products, effected in 1912, is now encouraging the export of agricultural staples. The measures for preventing or exterminating insects or worms injurious to fruit trees and plants were rigorously carried out, and necessary regulations concerning them were promulgated. Consequent upon these various progressive measures, not only are the agricultural products of the peninsula gradually on the increase, but the products are far better in quality. In the fiscal year 1915-16 subsidies totaling Y.1,100,000 were given to certain of those engaged in agriculture.

Model and Experimental Stations

The Model Agricultural and Industrial Farm, established eight years ago at Suigen, some 25 miles from Keijo, is still seriously engaging in many experimental and laboratory works concerning the planting of improved rice, various fruit trees, tobacco, hemp, German sugar beet, and other industrial staples, in addition to cattle breeding, sericulture, etc.

In the improvement of sericulture, this farm is taking the leading part by making experiments relating to this industry. A section for silkworm eggs was established at this farm in 1913, in order to secure uniform production of silk in the peninsula by distributing certain specified varieties—matamukashi, Koishimaru, Aojiku, Shinya, and Hakuryu—raised by this station. In the year 1915-1916 858 sheets of silkworm eggs of the spring brood, 92 sheets of the summer brood, and 339 sheets of the autumn brood were prepared and distributed among the provinces.

With the object of improving live stock in the peninsula, the breeding of cattle, pigs, and sheep is being experimented in by importing Berkshire pigs, Asshare and Simmenthal cows, and merino sheep, and gradual improvement is observable. But the merino sheep give discouraging results. The breeding of sheep of Mongolian origin, which species is able to stand a cold climate, for adaptation to Korean climatic conditions, was first experimented in by this farm by establishing a pasturage in Sempo, Heiko district, Kogen province, and these sheep are showing a healthy adaptation to life in Korea. The visitors to this farm are annually increasing in number and the works carried on by it were inspected by over 20,000 people during the year under review.

The farm also maintained branch farms at Ryuzan, Tokuson, Mokpo, Taikyu, and Heijo, which conducted experimental agricultural works according to the local conditions obtaining in each place. But, deeming it better to transfer these branches to the care of the provincial governments, except those conducting special work, the branches in Taikyu and Heijo were transferred to their respective provinces. The Ryuzan branch, giving a training in sericulture, was transferred to the main farm at Suigen. The detached farm at Genzan was made into a a branch and named Tokugen Branch, carrying on horticulture as heretofore, while the branch at Tokuson in the vicinity of Keijo also conducts horticultural experiments as hitherto. The Model Farm spent Y.251.202 during the fiscal year 1914, and Y.244.248 during 1915-16 fiscal year including the sum required for the attached agricultural school.

Provincial Seedling Stations

With a view to improving agriculture in Korea on a more general scale, by distributing seeds and young plants showing greater tendency to adapt themselves to the varying climatic and soil conditions existing in the different localities, seedling stations were maintained by all the provinces except Keiki, in which a Model Farm is located. The work of these stations was chiefly supported by tho Special Fund for Local Needs, aided by subsidies from the Central Government. These stations, working on a fixed area, are chiefly conducting experiments in the culture of mulberry trees, the testing of rice and other agricultural staples, the growth of various vegetables suited to local conditions, and the distribution of seeds and seedlings raised by them. In addition to investigating the agricultural conditions existing in their respective localities, the stations are guiding farmers by giving practical instruction in, and important lectures upon, the use of improved agricultural tools, mat-making or other industrial training, planting of mulberry trees, cultivating and utilizing of waste lands, overcoming destructive diseases of vegetables and plants, and upon manures and other important matters connected with agricultural development. These stations also conduct live stock farming and distribution. The number of those visiting or consulting these stations greatly increased. For the expenses of these provincial seedling stations Y.106,857 was apportioned for the fiscal year 1915, of which Y.81,310 was furnished by the Central Government.

Cotton Plantations

Not only are the climatic and soil conditions of the southern part of the peninsula well suited to the growth of cotton, but it has been proved that the American upland cotton—especially "King's Improved"—gives far better results in quality as in quantity than the native cotton, and the planting of this American species has been encouraged since 1906. Under the constant encouragement of the Government, the cultivation of this species and its annual output have grown steadily year by year so that the crop now nearly equals that of the native species, as shown in the following table:

Year	Upland Cotton of American Origin			Native Origin		Total	
	Area of Plantation	Production	No. of Planters	Area	Production	Area	Production
	Cho	*Kin*		*Cho*	*Kin*	*Cho*	*Kin*
1910	1,123	845 342	20,987	42,111	10,627,828	43,234	21,473,170
1911	2,684	2,737.050	43.185	5,534	419,969,119	47.218	22,706,169
1912	6 440	7,216,133	77,793	44,633	23,063,230	51,073	30,279.363
1913	13.967	13.445,282	120,549	43,912	22 099,312	57.879	35,544.594
1914	21.051	17,471.452	187.382	40,457	18,652,078	61,508	36,123,530
1915	30,324	28,668,371	263,069	34,978	16,338,150	65,302	45,006,521

The increase in the planting of upland cotton is such that it is now replacing that of native cotton. The area planted with native cotton, amounting to 45.500 cho in 1911, was reduced to 43.900 cho in 1913, and to 40,457 cho in 1914.

Sericulture

Improvement and encouragement of sericulture, as stated in previous annual reports, was carried out by the Government, central and local, by distributing superior species of mulberry trees and uniform species of silkworm eggs of Japanese origin raised at the Model Farms, and by giving proper training in, and necessary lectures upon, sericulture. As shown in the following table, the planting of *mulberry trees and the use of silkworm eggs* of Japanese origin are making rapid increase year by year.

Year	Area of Land Planted with Mulberry Trees			No. of Families Engaged in Sericulture	No. of Sheets of Silkworm Eggs		
	Japanese Origin	Native Origin	Total		Japanese Origin	Native Origin	Total
			Cho				*Sheets*
1910	—	—	3.344	76,037	11,347	78,633	89,980
1911	—	—	3 913	101.662	24,524	102.600	127.124
1912	1,589	3.637	5.226	149.927	55.104	124.287	179.391
1913	3.337	4,125	7.462	167.342	106.925	96.786	203.711
1914	6 235	4,011	10,246	177.320	166.848	71,194	238,042
1915	8.897	3,936	12,833	201,963	243,702	39,665	283.367

Year	Production of Cocoons in *Koku*			Cocoons Exported to Japan
	Japanese Origin	Native Origin	Total	
			Koku	*Koku*
1910	2,136	11,795	13 931	146
1911	4,642	15.390	20,032	510
1912	10,797	18,643	29 440	1,256
1913	22.528	14,313	36,871	4.252
1914	35.427	10,767	46,194	11,695
1915	53,233	5,923	59,156	23,160

The cultivation of wild sikworms, as carried on in the Antung districts of China beyond the Oryoku (*Yalu*), being capable of successful working in Korea, as the conditions in northern Korea and Antung are much alike, and the "*Quercus Mongolia*," on which these wild silkwoms feed, abounds in both regions, the rearing of these wild silkworms was also encouraged in the northern parts of north Heian province along the Oryoku River by the Government of this province.

The Keijo prefecture took the initiative in 1915 by utilizing the proceeds from the Imperial Donation Funds in training young girls in silk spinning by purchasing a spinning factory and putting it into better working order. This factory, equipped with steam power, 96 kettles, and 100 reeling machines, employs 103 Korean girls and 13 Japanese female supervisors, paying them regular wages, and encouraging the saving of part of their earnings. This factory turned out 664,530 momme of silk thread in 1915 and 1,109,433 momme in 1916. Korean girls of eighteen years of age can earn eight yen per month on an average, that is to say, their earnings exceed those of their fathers in some cases.

Mining in Korea

Mining undertakings in Korea are growing year by year, says the Government report for 1914-15 recently issued, yet until lately it was a matter for regret that most of the undertakings, except those conducted by the Government and several foreign syndicates, were being carried on with inadequate capital and were satisfied with *superficial exploitation* only, so that improved machinery was rarely used. Mining in the peninsula, however, is now attracting the attention of capitalists or corporations of good repute in Japan, and those applying for concessions for actual development are gradually increasing in number.

The total number of applications for concessions for mining proper and placer mining submitted during the year 1914 was 542, being a decrease of 68 compared with that for the preceding year; and in 1915 the total was 814, being an *increase of 272 over 1914.* This increase was due to the stimulus suddenly given to mining undertakings through the high price of mineral products brought about by the European War. Of these applications, the number approved by the Government during 1915 was 380, being an increase of 72 compared with the previous year. Should they be classified according to the nature of the mines, *210 were for gold and silver,* 72 for placer mining, 23 for coal, 13 for iron, and 28 for gold-silver-copper-zinc ore.

The total number of mining concessions granted since the enforcement of the Mining Regulations to persons of various nationalities reached 1,004 at the end of December, 1915.

Mineral Deposit Survey

Mineral deposits are found in almost every province of Korea, but are more abundant in the northern parts of the peninsula.

As remarked in previous Annual Reports, the survey of mineral deposits in the peninsula was commenced in 1911, with a view to furnishing reliable information to those interested in mining. In the three years ending December, 1914, such survey was completed in seven provinces—North and South Kankyo, North and South Heian, Kogen, Keiki, and Kwokai—and *in* portions of the six provinces of North and South Keisho, North and South Chusei, and North Zenla. As soon as the results of this survey were printed, pamphlets were distributed among those interested in mining. If deposits thus surveyed are classified according to the minerals present, gold and silver are the most widely distributed, iron, anthracite coal, copper, lead, zinc, graphite, coal, and *iron pyrites coming next in order.* In addition, tungsten, chromium, molybdenum, mercury, tin, asbestos, mica, and talc are also found in the peninsula. As building materials or for other purposes, marbles and similar stones are found.

Consequent upon these surveys, the gold mines in Shoshu district, North Keisho province, Gishu prefecture, North Heian province, and Kanko district, South Kankyo province, and the anthracite coal seams in Kaisen and Junsen districts, South Heian province, were to be retained by the Government *for experimental exploitation.* Of these mines retained by the Government, experimental exploitation was commenced in the year under review in three places; viz., Shoshu, Kanko, and Gishu.

Growth of Mining Operations

As already alluded to, Japanese big capitalists became, on the invitation of the Governor-General, rather more interested in mining operations in the Peninsula. The European War further stimulated mining activities in Korea. The Government coal mine at Heijo *is planning an enlargement so as to increase* its annual output from 100,000 tons to 300,000 tons. The Mitsubishi Firm pushed on with its erections under way, and built furnaces at Kenjiho for the smelting of iron ore from Kwoshu and Sainei iron mines without waiting for the arrival of foreign machinery. The Furukawa Mining Partnership Corporation working Kijo Gold Mine became impatient at the non-arrival of the German stamps ordered before the European War broke out and installed Japanese stamps, and started crushing and smelting, while the Mitsui Mining Company interested in iron mining at Kaisen, South Heian province, built a light railway from the mines to Shin-Anshu Station, a distance of about twenty miles, for the transport of iron ore, and are now furnishing iron ore to the Honkeiko Iron Foundry conducted by the Okura Firm in Manchuria. The Kuhara Mining Joint-Stock Company also started a mill at Chinnampo to extract gold from purchased ores by the dry process on a large scale, and many gold mine operators, lacking appliances for the extraction of gold, either by the dry or wet process, were thus encouraged to continue their work. The Kuhara Firm also pruchased a big copper mine at Kapsan from an American company for Y.3,000,000 in May, 1916, and soon started exploitation and the erection of smelting furnaces. In addition, foreign operators of the gold mines at Suian, Shojo, and Kwaizan enlarged the scale of their work.

Mineral Products

Of the mineral products, chiefly gold, though more than two thirds of the output came from mines operated by foreign companies, there is yet a tendency to increase in the output by Japanese operators. Mining in the Peninsula beginning to attract the attention of capitalists or corporations of good repute in Japan, those engaging in the actual working of mines are gradually on the increase. The Mitsubishi Firm has started to build an iron foundry in Kenjiho on the Taido River in order to utilize the iron ore and coal produced in the Peninsula, while the Mitsui Mining Company is interested in iron mining at Kaisen, South Heian province, and started in 1914 to build a light railway from the mines to Shin-Anshu Station, a distance of about twenty miles. The Furukawa Mining Partnership Corporation began experimental exploitation work at Kijo gold mine *in 1914.* The Kuhara Mining Joint-Stock Company also started a mill at Chinnampo to extract gold from purchased ores by the dry process on a large scale. On completion of this plant, many gold mine operators, lacking appliances for the extraction of gold either by the dry or wet process, will undoubtedly be encouraged to continue their work.

Following on the various measures for improvement in, and encouragement given to, mining development, the annual output of minerals is increasing, as shown in the following table:

End of December, 1914

Description	Japanese	Korea	Joint Undertakings, Japanese & Korean	English	American	Joint Undertakings, Japanese & American	Joint Undertakings, Korean & American	German	French	Italian	Russian	Total
Mining Proper	594	230	25	5 *1	14 *2	—	—	2	2 *1	*1	1	873 *5
Placer Mining	90	118	21	*1	16 *2	—	—	—	*1	*1	—	245 *5
Total	684	348	46	5 2	30 *4	—	—	2	2 *2	*2	1	1,118 *10
1913	612	369	51	5 *2	31 *4	2	1	6	2 *2	*2	1	1,080 *10

* Patents given prior to the enforcement of the Mining Law.

Industrial Development in Korea

A Central Experimental Laboratory was created in 1912 by taking as its nucleus the Industrial Training School which was established in 1907, in order to furnish to persons interested the results of scientific investigation or analysis of agricultural and mineral products obtained in the Peninsula, and thereby stimulate industrial growth.

With regard to experiments conducted for the improvement of manufactured liquors, the work is still continued, and the method for the proper preservation of liquors was also studied. This institution at one time studied the quality of wheat produced in the Peninsula and proved that wheat raised in the northern and western parts of the Peninsula was the best for making flour. Extraction of diastase from beans, and yeast from rice husks was experimented in. With a view to preventing imports of Chinese pongee silk and substituting for it that made in Korea, the institution experimented in the weaving, bleaching, and dyeing of this silk, and also in the starching of it. Utilization of a Korean rush called the wangel for making mats, straw hats, chair bottoms, etc., was also made the subject of experiment.

Regarding earthenwares, the clay, sand, and rocks in different localities were examined and tested in order to ascertain their use as materials for making porcelain, glass, etc.

As to applied chemistry, the manufacture of soap, paper, leather, lacquer ware, etc., was studied and experiments made, utilizing for that purpose beans, the paper mulberry, cow hides, the lacquer tree, etc.

The Industrial Training Section is affording a theoretical and practical training to young Koreans, details of which are given in the Chapter on Education.

In order to encourage industrial crafts, as well as to induce improvement in industrial skill, the Government-General continues to grant subsidies to associations or individuals conducting weaving, paper making, matting, bamboo work, pottery, or other industries. The subsidies for such industrial encouragement consisted not only of pecuniary grants, but implements also were often furnished by the Government, as hitherto. During the fiscal year 1914, a sum of Y. 18,396 was distributed among all the provinces, Y.18.300 being distributed in 1915. In addition Y.33,900 from Local Expense Funds, and Y.94,700 from the Imperial Donation Funds were defrayed for encouragement of industrial crafts.

Factories

In the Peninsula most of the manufactures were ordinarily conducted as domestic industries, so the factory system hardly existed, save for a few factories run by Japanese. Under such circumstances, no factory law was provided, so manufacturing houses employing labor were supervised by the police and other administrative authorities, except factories maintained by corporations, these of course being controlled by the Company Regulations.

With industrial development, and with expansion of communication and banking facilities, the number of factories maintained by corporations or individuals showed a tendency to increase. The following table shows the general conditions of factories giving work to more than ten employees and turning out products to the value of over Y. 5,000 per annum:

End of December, 1915

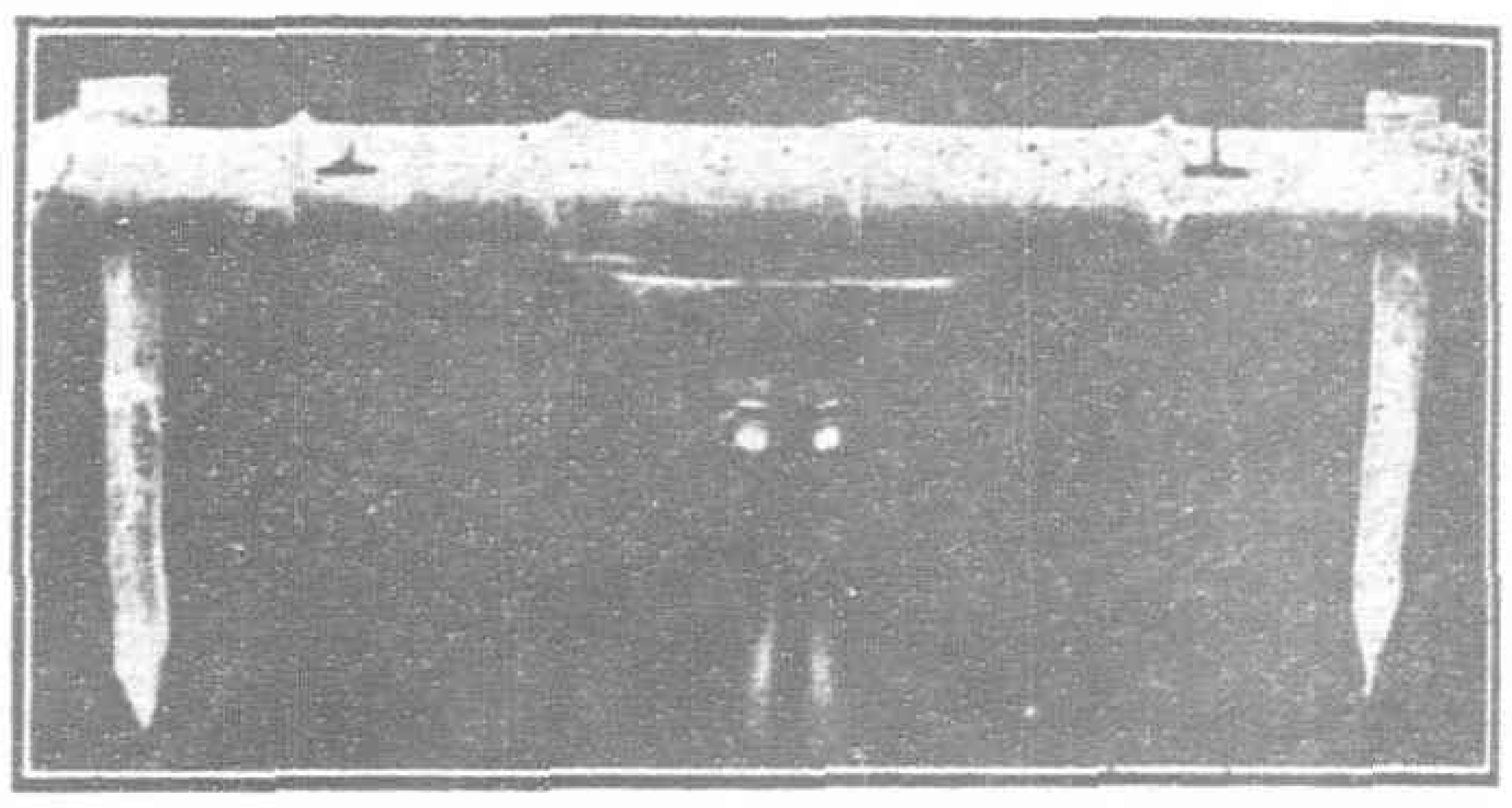
No. of Factories

Industry	Japanese	Korean	Joint Undertaking by Japanese & Korean	Foreign	Total	Capital
						Yen
Dyeing and Weaving ...	9	27	—	—	36	201,990
Silk spinning	—	—	1	—	1	40,000
Cotton ginning	17	2	—	—	19	1,272,914
Paper	3	3	—	—	6	219,860
Hides and Tanning ...	4	25	—	—	29	650,000
Earthenware	46	20	—	2	68	351,530
Soap	8	—	—	—	8	30,533
Candles	5	—	—	—	5	13,500
Dyestuffs...	2	—	—	—	2	200,000
Manure	3	—	—	—	3	240,000
Metals	46	24	—	—	70	312,300
Wood	12	2	—	—	14	43,900
Lumbering	9	—	—	—	9	143,000
Shipyards	4	—	—	—	4	78,000
Shell Buttons	4	2	—	—	6	6,450
Grain cleaning	99	70	1	—	170	2,002,900
Flour milling	7	—	—	—	7	30,300
Bread	8	—	—	—	8	18,600
Cakes	23	—	—	—	23	71,400
Tobacco	19	4	—	—	23	2,861,068
Liquors	91	1	1	2	95	1,426,843
Soft Drinks	5	—	—	—	5	25,800
Ice...	2	—	—	—	2	170,183
Salt	13	—	—	—	13	397,000
Canning	14	—	—	—	14	145,100
Printing	46	10	—	—	56	711,953
Tailoring...	5	1	—	—	6	70,500
Bricks	14	4	—	9	27	4,417,053
Electricity and Gas ...	15	—	3	—	18	4,563,805
Others	23	10	1	—	34	355,125
Total...	556	205	7	13	781	21,083,607
1914	465	175	6	8	654	17,371,832

Description	1909	1910	1911	1912	1913	1914	1915
	Yen	Yen	Yen	Yen	Yen	Yen	Yen
Gold.	3,109,773	3,744,957	4,433,838	4,644,983	5,692,321	6,064,318	6,767,253
Gold Ore. . .	166,164	209,920	12,499	187,233	70,223	110,016	192,108
Placer Gold. .	526,969	821,609	591,618	670,693	970,205	575,350	699,390
Gold and Silver Ore	4,280	42,835	53,072	38,378	2,926	—	—
Gold and Copper Ore. . .	—	246,631	230,210	293,098	372,064	500,487	970,298
Silver	4,096	6,555	7,118	15,097	28,760	18,712	22,594
Copper Ore. .	2,727	21,488	684	6,642	3,764	1,705	9,506
Iron Ore. . .	327,613	421,462	162,988	201,845	233,975	267,606	357,409
Graphite. . .	181,574	153,477	169,065	234,799	252,863	122,178	269,438
Coal	225,864	388,781	539,497	557,802	570,158	739,791	997,746
Other Minerals.	—	—	63	—	3,193	2,489	15,147
Total. . .	4,587,615	6,067,952	6,185,958	6,815,118	8,197,526	8,402,649	10,515,966

Bamboo Cross Ties for Light Railway

In the construction of a new road in the Philippines, cross ties, fishplate, clips, and bolts to connect up a kilometer of rails were lacking. These accessories could not be had in Manila and, to avoid a delay of many months, the problem was solved by Mr. Fidel Pekson, a foreman, who devised a successful plan by which bamboo ties without accessories were used. An end tie is shown in the photo above. The bamboo used for ties must have a thick shell, so the lower part of the bamboo trunk is the only useful part. A 5-meter section of 60-centimeter gauge track requires two end ties and three intermediate ones. The notches fit the rails and keep them always 60 centimeters apart. The stakes at the ends hold the rails firmly to the ground, thus doing away with the need of fishplates.



BAMBOO END TIE

TRAMCAR OF ONE CUBIC YARD CAPACITY OPERATING ON TRACK WITH BAMBOO TIES

Soya Beans as an Oriental Product

[BY CONSUL A. A. WILLIAMSON, DAIREN]

In response to requests from the United States for estimates of the quantities of soya beans and bean oil produced in this part of the world, the American consulate at Dairen, which is the center of the soya-bean industry in Manchuria, has prepared figures of exports of beans, bean oil, and bean cake for five years from the Chinese customs reports.

It is generally understood that Manchuria's annual production of beans is between 1,500,000 and 2,000,000 tons, and the tables given show this estimate to be approximately correct. The total is gradually increasing, but the growth of the new sugar-beet industry may somewhat affect it. These tables show the exports of beans, bean cake, and oil from ten customs stations located at such points that any and all soya beans or products of Manchurian origin must pass through them.

Different Systems of Classification

At some stations from which soya beans are certainly exported there is no separate classification for them, but all leguminous products appear to be grouped under one head—beans and peas. This classification has been distinguished in the tables. At some other stations there is a subdivision of such products into several classes. In such cases the figures for yellow beans have been taken, for though this term is indefinite, soya beans are often referred to in that way, and the soya bean of commerce is the yellow soya bean (which the customs officials seem to have adopted), though there are half a dozen varieties of these beans, from white to black.

It is generally considered at Dairen that 48 kin of beans should produce one cake weighing 46 kin and 4 kin of oil. This kin is the Japanese measure of weight, which is equal to 1.3227 pounds avoirdupois, and 100 kin make 1 Japanese picul (132.27 pounds), which is the ordinary measure used by the bean trade here. This picul, however, is slightly different from the Chinese customs picul, which is 133⅓ pounds. The latter is the picul used in the tables presented with this report, and 15 of them make 1 short ton of 2,000 pounds, the Pacific freight ton as well as the American ton, and the ton used by the South Manchuria Railway.

Weight of Cake Increased by Steaming

It may seem strange that 48 kin of beans should produce 50 kin of products; but the 2 extra kin are taken up by the beans when, after being rolled, they are steamed before pressing. They make the water content of the cake, which is therefore liable to decrease in weight after storage. At any rate, 46 kin is the standard weight of a cake at Dairen for mixed storage purposes, and manufacturers generally aim to meet this standard, as cakes not reaching it must bring lower prices.

One mill at Dairen is using the extraction (benzine) process. This produces, of course, not bean cake but bean meal. It is stated that it is able to extract 20 per cent in oil from the beans, but probably the percentage does not exceed 15. In 1915 the customs returns showed 6,261 tons of meal exported, with no figures available for previous years. The products of this mill are not taken into consideration in the accompanying tables, with the exception of oil.

The figures given cover much territory that is not served by the South Manchuria Railway and also a large quantity that goes through Vladivostok ultimately, via Suifenho

Calendar Year Most Satisfactory for Statistics

The bean season does not coincide with the calendar year, but extends over the winter months, so that part of the 1914 crop is exported in 1915, etc. But there is no way to get these figures so as to show crops. It is possible to estimate the Dairen figures fairly well, but on account of the other places that are included it is almost impossible to adopt any but the calendar year, which, after all, is the best for various reasons. Beans are often held over in the interior, so that it would be hard to separate crop from crop.

Bean oil is used by the native Chinese population in many ways,—cooking, lighting, lubrication, etc.,—and no doubt much oil is manufactured by small interior mills for local consumption, the cake produced necessarily being shipped off for export. Hence there should be an excess of cake, as the figures show, and a nonagreement here is quite correct.

Figures from Chinese Customs Reports

Figures have been compiled from the Chinese customs reports showing the exports of beans, bean oil, and bean cake for 1911, 1912, 1913, 1914, and 1915. In piculs of 133⅓ pounds or 15 to the short ton, and with the totals converted to tons, these are:

Chinese customs stations	1911	1912	1913	1914	1915
SOYA BEANS	*Piculs*	*Piculs*	*Piculs*	*Piculs*	*Piculs*
Sansing	55,093	5,731	227,563	504,470	252,247
Manchouli*	1,515	942	2,407	3,879	5,591
Harbin*	86,238	65,125	64,552	228,458	99,746
Suifenho*	5,854,122	5,320,197	4,167,060	3,846,940	7,026,962
Hunchun*	1,402	3,874	19,000	3,537	3,933
Lungchingtsun† ...	—	—	—	440	2,318
Antung	68,872	89,431	114,249	201,822	338,493
Tatungkow	16,308	12,170	9,676	26,730	7,850
Dairen (by steamer)†	3,788,955	2,428,607	2,119,862	4,054,369	4,215,593
Dairen (by junk) ...	84,515	103,088	61,269	62,295	225,197
Newchwang (by steamer)†	1,498,580	1,011,277	854,108	819,063	1,423,831
Newchwang (by junk)†	136,802	143,977	103,202	82,949	133,006
Total	11,592,402	9,184,419	7,742,948	9,834,952	13,734,767
Tons	772,827	612,295	516,197	655,663	915,651
Tons required for cake exported ...	951,465	762,143	965,806	854,083	1,161,037
Total tons ...	1,724,292	1,374,438	1,482,003	1,509,746	2,076,688
SOYA-BEAN OIL					
Sansing...	5,531	761	1,484	2,286	486
Manchouli	5,224	4,587	4,920	6,272	7,430
Harbin	38,136	31,377	28,678	38,460	49,549
Suifenho	3,183	608	779	686	22,778
Hunchun	4,590	9,143	10,671	3,274	4,708
Lungchingtsun ...	101	387	332	128	345
Antung...	5,485	8,376	2,881	2,468	7,833
Tatungkow	...	...	...	...	...
Dairen (by steamer)...	487,860	496,459	579,256	640,435	855,816
Dairen (by junk) ...	18,086	46,582	70,172	41,900	23,340
Newchwang (by steamer)	162,588	112,764	112,971	41,844	60,277
Newchwang (by junk)	257,999	214,629	198,822	168,020	195,385
Total	988,783	925,673	1,011,172	945,773	1,227,946
Tons	65,919	61,712	67,411	63,052	81,853
Tons of beans required	791,028	740,544	808,932	756,624	982,325
BEAN CAKE					
Sansing	2,643	3,500	4,520	5,146	6,950
Machouli	...	...	...	...	...
Harbin	9,276	11,083	6,128	10,186	67,745
Suifenho	231,167	206,745	238,140	371,847	1,080,097
Hunchun	68,058	101,180	108,718	43,541	53,691
Lungchingtsun ...	...	...	...	1,431	1,638
Antung	497,497	601,167	544,833	413,825	753,819
Tatungkow	116,494	108,123	13,623	24,398	9,496
Dairen (by steamer)...	6,852,188	5,632,003	8,459,484	8,012,983	10,030,910
Dairen (by junk) ...	101,005	48,838	32,552	39,241	332,246
Newchwang (by steamer)... ...	5,583,436	3,954,590	4,228,905	3,186,825	4,086,024
Newchwang (by junk)	215,551	288,578	246,555	168,022	261,301
Total	13,677,315	10,955,807	13,883,458	12,277,445	16,689,916
Tons	911,821	730,387	925,564	818,496	1,112,661
Tons of beans required	951,465	762,143	965,806	854,083	1,161,037

Railway's Estimates of Average Production

The South Manchuria Railway's estimate of the average annual production of soya beans at the various stations on its line, in tons, is: Changchun, northern part, 300,000; Fanchatong, eastern part, 30,000; western part, 50,000; Kungchuling, eastern part, 60,000; western part, 60,000; Kuochiatien and Seupingkai, eastern part, 80,000; western part, 70,000; Chengchiatun, eastern part, 20,000; western part, 10,000; Kaiyuan, eastern part, 200,000; western part, 50,000; Tiehling eastern part, 50,000; Heintaitsu, eastern part, 20,000; western part, 40,000; Fushun, eastern part, 60,000; Liaoyang, eastern and western parts, 40,000; other parts, 160,000; total, 1,300,000 tons.

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* Beans and peas. † Yellow beans.

ENGINEERING, FINANCIAL, AND INDUSTRIAL NEWS

RAILWAYS

The Transportation Conference called by the Peking Ministry of Communications met on the 24th of June. Each of the Government railways sent representatives to attend the conference.

Mr. Sui, who was entrusted with the repairing of the Chi-ho bridge of the Kin-Han line reports that the bridge has been completed. The Ministry has appointed Technical Inspector Shen Chi to inspect the work.

The Szepingchai-Chengchiatun Railway has been operated for half a year already. The railway will hold the opening ceremony on the 1st of July and invitations to Chinese and foreign friends have been issued.

Japan's Communications Receipts.—According to the returns of the Communications Office, at the end of May from the beginning of April, the Communications receipts ran up to G.Y.1[illegible],192,344, being the respective increases by G. Y.2,908,334, and G. Y.2,082,990 on the estimated receipts and receipts for the corresponding period of last year. The aggregate receipts of the Railways for the current fiscal year are now estimated at Y.323,000,000 as a result of the raising of the passenger and freight tariffs, as against the original estimate of Y.220,000,000.

Chinese Eastern Railway.—According to the announcement of the Chinese Eastern Railway, Harbin, the Directorate of the Railway was organized as under at a general meeting at Peking on April 14:

Lieut.-Gen. Horwath, Managing Director.

M. Poutiloff, Vice Admiral Korchak, M. Usturgoff, M. Konovaloff, M. Slauta, M. Yenshihching, and another Russian gentleman, Directors.

Lieut.-Gen. Horwath is authorized to act for M. Wentzel, Vice President, in the latter's absence, and M. Lachnoff (Vice Director) to act for Director in the absence of Lieut. Gen. Horwath.

Congested Supplies at Changchun.—The accumulations of goods lying congested at Changchun have decreased from over 200,000 tons to 120,000 tons. No through goods from the Chinese Eastern Railway will be accepted for southward transportation until after the congestion is further relieved.

Ario Railway Bought.—By a Japanese Cabinet Ordinance, the price for the purchase of the Ario Railway was fixed at G. Y.1,900,000, payable in public bonds to the face value of G. Y.2,054,000.

Light Rail Line from Sungari to Inner Mongolia.—Mr. Kao (a wealthy Chinese merchant of Dolon Nor) has applied to the Communications Office, Peking, for permission to construct a light rail line from the Sungari to Inner Mongolia.

South Manchuria Railway Revenue.—A rough estimate of the income of the South Manchuria Railway for the month of May amounts to Y.742,754 from passenger traffic, Y.2.508,513 from freight, Y.77,089 from warehouses, and Y.123,692 from miscellaneous sources, making a total of over Y.3,452,000. Compared with April, this shows a decrease by Y.197,844 in the income from passenger fares, Y.273.539 in freights, Y.412 in warehouses, and Y.17,071 in miscellaneous revenue.

Cable Railway in Japan.—The first cable railway built in Japan was opened to traffic June 20 over Ikoma Yama (Kawachi Province), in Nara Prefecture. Work on this section of the Ikoma-Yamato Railway was begun in the spring of 1916. It enters the mountain from a place about forty ken off Ikoma Station, and has an inclined length of about seventy chains to the top. Half way up the incline there is a switch which passes cars on the way down. The carriages have fifty seats each. The train attains a speed of four miles an hour.

Kowloon=Canton Railway Branches.—In the annual report for 1917 of the Kowloon Canton Railway (British section), it is stated that detailed surveys of possible routes for branch lines to points at Taikoktsui on the western side of the peninsula and to Taiwan Bay on the eastern side were undertaken during the year, with a view to earmarking the land necessary for such branch lines, but much still remains to be done before definite routes can be decided upon or estimates prepared, as both traverse difficult country and cross several public highways.

Shanghai Tramways.—(Foreign Settlement.) The following is the traffic return of the Shanghai Tramways (Foreign Settlement) for the month of June, 1918, and for six months ended June 30, 1918, with figures for the corresponding periods last year:

	June, 1918	June, 1917
	$	$
Gross receipts	134,811.69	129,668.58
Loss by currency depreciation	30,535.61	28,846.86
Effective receipts	104,276.08	100,821.72
Percentage of loss by currency depreciation...	24.06	23.70
Car miles run	333,163	342,784
Passengers Carried... ...	6,179,542	5,937,399

	6 months ended June 30, 1918	6 months ended June 30, 1917
	$	$
Gross receipts	814,656.56	784,518.20
Loss by currency depreciation	180,307.95	174,225.04
Effective Receipts... ...	634,348.61	610,293.16
Percentage of loss by currency depreciation.	23.45	23.53
Car miles run	1,998,287	2,010,924
Passengers carried ...	37,050,770	35,416,751

HARBORS, DOCKS, Etc.

Dairen Wharves.—The South Manchuria Railway Company, proposes to reclaim the shore front at Dalny from the eastern end of the reclaimed land at Jijiko eastward to near the northern extremity of the Inflammable Goods Pier. The date of completion is put at December 31, 1919.

Kawasaki Dockyard Co.—The net profit realized by the Kawasaki Dockyard Co. during the first half of this year just ended amounted to Y.14,030,000. The shareholders' general meeting is to be held on the 28th inst. and a dividend of 40% will be declared.

Increase of Capital by Shipbuilding Yards.—The Asahi Shipbuilding Co., Tokyo, and the Osaka Shipbuilding Co. propose to increase their capitals and are ready to refer the matter to their respective shareholders' meetings to be held shortly. The former is capitalized at Y.1,000,000 which amount will be doubled or perhaps trebled. The latter has a capital of Y.1,500,000 which will be increased to Y.5,000,000.

Dredging at Tsingtao.—An up-to-date dredger loaned by the South Manchuria Railway Co., Dalny, is now dredging the junk harbor at Tsingtao.

Osaka Dockyard Co.—A dockyard company under the style of the Osaka Dockyard Co. made its début recently. A good number of powerful business men at Osaka and Kobe are interested together with a number of those at Tokyo. The capital amounts to Y.1,000,000 divided into 20,000 shares of Y.50 each.

Improving Nagoya Harbor.—The improvement of the Nagoya harbor, for which an appropriation of Y.15,000,000 is estimated is being discussed. It is planned to dredge the harbor to a depth of thirty feet so that three 12,000 ton ships and more than ten smaller ships may be moored in the port. With the earth obtained by dredging a large tract of ground on the shore will be reclaimed. The plan also includes the extension of the breakwater and quay and other improvements.

Lighthouses along Chosen Coast.—The lighthouses along the Chosen coast including the dependent islands number ninety for the coast line extending 8,450 miles, at the rate of one for about every ninety-four miles of coast line. The average in Japan is fifty-one miles; in Formosa, forty miles; in Europe, 12 miles. The authorities concerned intend to construct 160 more lighthouses at an estimated outlay of Y. 2,500,000 in the course of a few years.

INDUSTRIAL

Match Companies Merged.—The Tan-feng Match Company of Peking, promoted by Mr. Chow Tsz-chi several years ago, was amalgamated with the Hua-chang Match

Company of Tientsin as a result of the resolution of a joint stockholders' meeting held recently. The new company is now known as the Tan-Hua Match Company, Limited, and has been registered by the Ministry of Agriculture and commerce. By the amalgamation the Company plans to widen the scope of its activities.

New Cotton Mills.—It is learned that the Tientsin Hua-Sin Cotton Mill (authorized capital $10,000,000, now $2,700,000 actually paid up), promoted by Chou Hsueh-hsi, former minister of finance and Li Shih-wei, former Governor of the Bank of China, has now set up the spinning and weaving machinery it ordered from America and will begin to operate on September first. The first mill has been erected at Tientsin, and the present paid-up capital of $2,700,000 is said to be more than enough for that enterprise. Next year the company proposes to start four other mills in Honan, Shantung, Hupeh, and Kiangsu.

Modern Biscuit Factory.—The operation, under experts brought from the United States, of the modern biscuit factory at Hongkong, with machinery purchased in the U. S. including an automatic oven and other machines aggregating about $200,000 in value, is progressing satisfactorily. The management proposes to commence the manufacture of 150 varieties of cakes, crackers, and biscuits, including not only standard foreign style products, but a large number of native cakes such as moon cakes, birthday cakes, and similar goods.

SHIPPING

The "Ningshao" is in the Kiangnan Dock as a result of a collision on the Yangtze River with a Kailan Mining Co.'s tugboat carrying rails. The Ningshao had a hole stove in her forward port side. Damage is estimated at Tls. 20,000, including loss of trade.

Japanese newspapers announce that two 40,000 ton men-of-war will be laid down this year at Kure and Kawasaki.

Twenty-four vessels of 24,092 gross tons were built in Hongkong during 1917.

A dispatch from Dairen states that owing to the shortage of bottoms the total quantity of goods awaiting transportation at the pier is 455,000 tons, which is a record.

O. S. K.'s New South Sea Route.—Since the German merchant marine evacuated South Sea routes, it has been strongly urged in shipping circles in Japan that a South Sea coastal service should be opened with Singapore as the starting point. The Osaka Snosen Kaisha has lately decided to open the following three lines:

1. Calcutta-Java Line, which will tap Calcutta, Rangoon, Singapore, Batavia, Semarang, and Soerabaya. The steamers to be used for the service will be the Korea Maru and the Annam Maru (both of 2,913 tons). Regular service, once a month.

2. Bankok-Java Line, which will tap Bankok, Singapore, Batavia, Semarang, Soerabaya. The steamers to be used will be the Changchow Maru (1,531 tons), and Fuchow Maru (1,455 tons). Regular service, twice a month.

3. Straits-Sumatra Line, which will tap Palemban, Singapore, Port Swettenham, Penang. Delhi. The steamers to be used will be the Tenchi Maru (793 tons), and the Iwami Maru (775 tons). Regular service, four times a month.

Japanese Ships for America.—The twenty-four Japanese vessels, aggregating 150,000 tons dead weight, chartered to the United States have now all left Japan, some of them having already been delivered to the American authorities. The Japanese shipowners have asked the American Ambassador in Tokyo for payment of the charter-rate, but it is reported the Ambassador has refused pending delivery of all the vessels chartered, on the ground that they apparently include some old and unseaworthy ships. The Japanese shipowners contend that since the charter contracts have been concluded separately with the American Ambassador, he should pay charter money for the vessels already delivered.

Pacific Mail Dividends.—The Directors of the Pacific Mail Steamship Company declared the regular semi-annual dividend of fifty cents on the common stock of the Company and an extra dividend of $1, both dividends payable June 15 to stockholders on record June 1. On December 26 last the company paid an extra dividend of $2.50 on the common stock, which has a par value of $5 a share. The by-laws of the company provide that no dividends shall be paid on the common stock outstanding until there has been accumulated from earnings an amount equal to three years' normal dividends on the preferred stock, which is seven per cent cumulative, per value $100.

The company at present has outstanding $1,700,000 of the preferred and $1,150,000 of the common stock, of which latter approximately fifty per cent is held jointly by the American International Corporation and W. R. Grace and Co. Its net income for 1917 was $1,554, 32 after all charges, and while indications have been that this year, with seven of its fleet of ten steamers under requisition by the Shipping Board, its earnings will not maintain that level, the requisition charter rates are sufficient to assure the present dividends.

Prosperity of Wooden Ship Building in Japan.—During 1917, the wooden ships, both steamships and sailing ships, built in Japan amounted to more than 50,000 tons, which was an unprecedented development. Of these vessels, those steamships above 20 to 100 tons numbered 44, aggregating 1,900 tons; those steamships above 100 tons up to 1,000 tons numbered 51, aggregating 20,000 tons; and those steamships above 1,000 tons upward numbered 6, aggregating 7,500 tons; totaling 101, aggregating 29,400 tons.

The number of wooden ships built and launched this year promises to increase considerably. Those already launched from January to April, of above 100 tons numbered 99, aggregating 60,500 tons. Of these, the vessels of above 1,000 tons are given below:

Daiichi Kaiun Maru, 1081, built by Harima Dockyard Co.: Sumida Maru, 1,300, built by Kwansai Dockyard Co.; Kaika Maru, 1,081, built by Mitsui Dockyard Co.; Daiju Mansei Maru, 1,039, built by Toyo Kogyo Kaisha; Daini Kaiun Maru, 1,000, built by Harima Dockyard Co.; Suiyo Maru, 1,100, built by Ifuji Dockyard Co.: Chitosegawa Maru, 1,000 built by Fukagawa Dockyard Co.; Namigoshi Maru, 1,172, built by Marutono Dockyard Co.

Chinese Gunboat Sold.—The sale of the gunboat Kwong Hoi, took place in the Tuchun's yamen, Canton, on June 8. The boat was purchased by the Chan Wa Company of Hongkong for $1,201,000.

Japanese Tramp Steamers.—According to authentic returns, the Japanese tramp steamers above 1,000 ton class numbered, at the end of last month, 301 with the aggregate of 793,433 tons gross, including 127 ocean goers with 456,035 tons and 174 adjacent-sea steamers with 337,398 tons gross.

Apart from the twenty-three steamers offered to the U. S. Government, the merchantmen under charter by foreign Governments and private foreigners were returned at twenty with the aggregate tonnage of 68,549 tons at the end of May last.

Shipbuilding Enterprise at Seishin, Chosen.—Shipbuilding enterprises, mostly for the construction of fishing and motor boats, at the port of Seishin, Chosen, have attained a striking development of late. A sailing vessel of 120 tons class is now in the course of construction at that port. Ample supply of timber for shipbuilding and cheaper labor wages facilitate the growth of the enterprise. In Japan and in South Chosen, a wooden vessel costs Y.150-200 per ton, whilst at Seishin only something like Y.100 suffices.

FINANCE

Bank of China Agency.—The Bank of China has established an agency in Dolonor, also known as Lama-miao, for the purpose of handling transfers, granting credits, etc., so as to assist the Chinese and Mongolian traders. Dolonor has an abundancy of products such as mushrooms, etc., and in spite of the dangers in the handling of money and the crude means of transportation, yet it is doing a very good business with the northern provinces. The establishment of an agency by the Bank of China will serve as a great stimulus to the development of the Dolonor trade.

Japanese Enterprises.—The investment in new enterprises in Japan during the month of April as compared with the previous month, according to the investigation of the Bank of Japan, increased by Yen 59,250,000, amounting to Yen 162,175,000. The investment in the extension of enterprises increased by Yen 21,196,000, amounting to Yen 88,703,000. The total increase of investment was Yen 80,446,000, the total investment amounting to Yen 250,878,000.

The grand totals between January and April, compared with those of the corresponding period of last year, showed that there was an increase of Yen 279,935,000 in new enterprises, amounting in all to Yen 446,693,000.

The extension of old enterprises amounted, with an increase of Yen 223,297,000, to Yen 390,195,000. The increase of investment totaled Yen 503,232,000, the investment amounting in all to Yen 836,890,000.

Bank of Canton, Ltd.—We apologize to the Bank of Canton, Ltd., for inadvertently stating in our last issue that they had suspended payment. The paragraph should have alluded to "a certain Bank in Canton," the mistake being made by the translator. The Bank of Canton, Ltd., is doing business as usual.

New Chinese Bank.—The military Governor of Hunan reports that he is enlisting the support of the local gentry in establishing a new bank and has already met with great success. The members of the provincial gentry are taking much interest in the movement. He requests the Governments to give the matter every support by remitting early what it owes to the province.

Osaka Banks Expand.—Osaka reports the organization of a banking syndicate, having as its object the investment of capital in undertakings in foreign lands. The banks participating in the syndicate are the Specie Bank, the Hypothec Bank, the Bank of Chosen, the Bank of Formosa, and seven banks in Tokyo, as well as Sumitomo Bank, Konoike Bank, and five other banks in Osaka.

The Bank of Communications has opened a branch at Dalny.

New Chosen Bank.—The new Chosen bank, Shokusan (Industrial) Ginko is capitalized at 10,000,000 yen, made up of joint investments by the different branches of the Farmers' and Mechanics' Bank, to the amount of 2,000,000 yen each. The first installment of capital to be paid in totals 4,000,000 yen.

Oriental Development Co.—The Oriental Development Company, which decided to increase its capital by 10,000,000 yen some time ago, distributed 140,000 shares, out of 200,000 among its shareholders on June 1, at the rate of one new share for one old share and will call for public subscription for the remainder through the stock brokers of Osaka and Tokyo.

Industrial Bank Debenture.—The Industrial Bank of Japan has decided to issue a new debenture of G. Y30,000,000 at about 7% interest.

Japanese Customs Revenue.—The customs revenues of Japan for the month of May according to the Finance Department of Japan amounted to Yen 4,967,291, which was Yen 1,839,135 more than the corresponding period of last year.

Bank Dividend.—The Banque Industrielle de Chine proposes a dividend of ten per cent for last financial year.

American-Japanese Bank.—It is reported that the Syndicate banks in Tokyo and Osaka have now reached in agreement on the general outlines of a proposal to establish an American-Japanese Bank. It was at first proposed that the bank should have a capital of G.$2,000,000, but this has now been reduced to $1,000,000, which is to be subscribed equally by Japanese and Americans. The Japanese subscribers will include the Toyo Kisen Kaisha and others, in addition to the Syndicate banks. The head office will be established in California with branches at all convenient places.

Japanese Treasury Bills.—The payment for five per cent Treasury Bills was completed on June 6. The Finance Office proposes to employ the sum of G.Y.47,625,000 realized from the flotation for the Railway Accounts, the Chosen Enterprise Funds, and the Telephone Funds.

Japan's Gold Reserve.—The highest record in the amount of Japan's gold specie is Y.1,120,000,000 reached in December last. Some decline followed, but there has recently been a recovery and the record has now been broken. According to the returns issued by the Government, the total amount of specie on May 15 stood at Y.1,137,000,000, showing an increase of Y.36,000,000 over the figure for April 20 last and of Y.17,000,000 over the highest record mentioned. Particulars of the latest figures are as follows, classified according to the holder and the place of holding:

According to the Holder

Government	Y. 408,000,000
Bank of Japan	729,000,000
Total	Y.1,137,000,000

According to the Place of Holding

Home	Y.457,000,000
Abroad	680,000,000
Total	Y.1,137,000,000

MINES

New Mines at Mi-yun.—Having received favorable reports regarding the condition of several iron mines in Chihli, Mr. Tien Wen-lieh, the Minister of Agriculture and Commerce, has appointed Messrs. Yu Ho-yin and Lu Tsu-yin, mining experts, to go on a trip to prospect the mines. Mr. Yu will first go to see the iron mines at Yihsien, and Mr. Lu will go to see the iron mines in the Mi-yun district.

The Chung-hsing Mining Company of Yeh-hsien, Shantung, held a shareholders' meeting in June at which they elected Chu Chi-chien, former Minister of Interior as Managing Director. The company is reported to be doing a very good business.

MISCELLANEOUS

The new Japanese Diet building, which will cost 7,500,000 yen should be one of the best in the country. The present building was intended only for ten years' use, but thirty years have already passed since the talk of rebuilding was started.

The Tehchow Arsenal, Shantung, proposes to establish a steel and iron factory in Shantung. All supplies of steel and iron used by the arsenal obtained from Shanghai at great inconvenience.

Highway from Yokohama to Tokyo.—A bill appropriating Y.1,200,000 for the construction of a national road between Shinagawa and Kawasaki will be submitted at a meeting of the Tokyo prefectural assembly at its next sitting. The bill will undoubtedly be approved at the assembly, as the Kanagawa prefectural assembly has already voted for the reconstruction of the road from Yokohama to Kawasaki, appropriating Y.1,400,000 for the purpose.

1,500 Timber Rafts.—On the morning of June 7, 1,500 timber rafts arrived at Antung at the same time, literally covering the whole of the water area at Liutaokou. The arrivals may be estimated to be about Y.3,000,000 worth at the rate of Y.2,000 per raft.

Sugar Yield Decrease in Formosa.—The yield of Formosan sugar for the present year is estimated at 4,973,054 piculs, which is a decrease of 1,844,893 piculs compared with the yield of last year. The cause was unfavorable weather.

Embargo on Skins.—No invoices for skins, leather, and hides are to be certified by the United States Consulates for shipment from China after June 15, except in cases covered by Bill of Lading dated not later than June 15 or covered by import license number higher than 96,000.

Japanese Cotton.—The stock of Japanese cotton yarn in China is reported by a message to a firm in Tokyo to be increasing at a rapid rate. At Shanghai the accumulated stock is 20,300 bales, which is an increase of 17,100 bales over the same time last year. The accumulated stock at Hankow is 9,300 bales, 760 bales more than at the same time last year. At Tientsin the floating stock amounts to 8,200 bales, which is 3,000 bales above the figure for the same time last year.

Shanghai Telephone Co.—The report of the directors of the Shanghai Mutual Telephone Co., Ltd., presented at the annual meeting on June 4, states:

During the year the company installed more new telephones than in any previous year, but a large number were taken down owing to China entering the war, and the net increase for the year is only 802; 8,207 telephones were in use at the end of the year.

The amount available for appropriation is Tls. 206,469.01, which it is proposed to distribute as follows:

	Tls.
To Shareholders, Tls. 4 per share...	76,204.00
,, ,, Bonus, Tls. 1.50	28,576.50
,, Directors' fees	2,400.00
,, Reserve account	50,000.00
,, Fund for redemption of debentures	20,484.35
,, Bonus to staff 10 per cent ...	8,676.11
,, Carry forward to next year's account	20,128.05
	Tls. 206,469.01

Internal Troubles and Trade.—A recent report by Messrs. Ilbert & Co. gives some interesting figures showing the effects on trade of the disturbances of the past 12 months, indicating a general falling off in clearances of all imported and locally made piece goods. The figures represent totals cleared of gray, bleached, dyed, and printed cotton goods of all descriptions, but exclude handkerchiefs, woolens, and mixtures. The figures are made up to May 31: 1917, 4,989,473 pieces; 1918, 3,006,146 pieces.

Pieces	1917	1918
Gray Shirtings and Sheetings	1,616,710	1,197,052
Gray T-Cloths	121,703	86,712
White Shirtings, Irishes and T-Cloths	1,598,118	729,182
Drills and Jeans	513,757	291,206
Prints	195,901	128,371
Dyed plain and figured Cottons	933,284	573,628

Sino-American Sheep Co.—It is reported that a large sheep-rearing association has been formed at Portland, United States, with Mr. Stanford, who has 500,000 head of sheep, as President, and Mr. Colbert, President of the Portland Chamber of Commerce, and Dr. Tanimura as Vice Presidents. The object of the association is to establish a large pasture in Japan with American capital. Sheep will be imported from the United States for breeding under the care of American experts. It is further proposed to export sheep to Manchuria and Mongolia to develop the woolen industry there.

Tebong Dividend.—The Tebong Rubber & Tapioca Estate, Ltd., will pay a final dividend of Tls. 0.50 per share, making Tls. 1.50 per share for the year.